ORDER NO.CHM0605030CE
B12

Service Manual

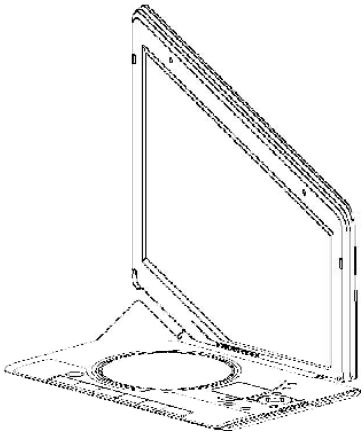
Portable DVD/CD PLAYER

DVD-LX110PP

RAE1907Z-C Mechanism Series

Colour

(S).....Silver Type



SPECIFICATIONS

Specifications

Operating temperature range:	**+5 to +35°C (+41 to +95°F)**
Operating humidity range:	**5-85% RH (no condensation)**
Region number:	**Region No.1**
Discs played / [8cm (3”) or 12cm (5”)]:	**DVD (DVD-Video, DVD-Audio)** **DVD-RAM [DVD-VR, JPEG(*4,6,7), MP3(*2,6), MPEG4(*5,6)]** **DVD-R [DVD-Video, DVD-VR, JPEG(*4,6,7), MP3(*2,6), MPEG4(*5,6)]** **DVD-R DL (DVD-Video, DVD-VR)** **DVD-RW [DVD-Video, DVD-VR,JPEG(*4,6,7), MP3(*2,6), MPEG4(*5,6)]** **+R/RW (Video)** **+R DL (Video)** **CD, CD-R/RW [CD-DA, Video-CD, SVCD(*1), MP3(*2, 6), WMA(*3, 6), JPEG (*4,6,7), MPEG4(*5,6), HighMAT Level 2 (Audio and Image)]** ***1: Conforming to IEC62107** ***2: MPEG-1 Layer3, MPEG-2 Layer3** ***3: Windows Media Audio Ver9.0 L3. / Not compatible with Multiple Bit Rate (MBR)** ***4: Exif Ver 2.1 JPEG Baseline files Picture resolution: between 160× 120 and 6144×4096 pixels (sub sampling is 4:0:0, 4:2:2, 4:2:0 or 4:4 :4)** ***5: MPEG4 data recorded with the Panasonic SD multi cameras or DVD recorders Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system.** ***6: The total combined maximum number of recognizalbe audio, picture and movie contents and groups: 4000 audio, picture and movie contents and 400 groups.** ***7: Extremely long and slender pictures may not be displayed.**
Signal system:	**NTSC**
LCD screen:	**11” -Si, TFT wide-screen LCD** **VGA 800 × 480 × RGB pixels**
Composite-video output/ / input:	
Output/input level:	**1Vp-p (75)**
Output/input terminal:	**Mini-jack (3.5mm)**
Number of terminals:	**1system (output/input selectable)**
Audio output/input:	

Output/input level: 1.5Vrms (1kHz, 0dB, 10k)

Output/input terminal:

Stereo mini-jack (3.5mm)

Number of terminals: 1system (output/input selectable)

Audio performance:

(1) Frequency response:

- DVD (linear audio): 4Hz-22kHz (48kHz sampling)
  4Hz-44kHz (96kHz sampling)
- DVD-Audio: 4Hz-88kHz (192kHz sampling)
- CD audio: 4Hz-20kHz

(2) S/N ratio:

- CD audio: 115dB

(3) Dynamic range:

- DVD (linear audio): 98dB
- CD audio: 97dB

(4) Total harmonic distortion:

- CD audio: 0.008%

Digital audio output:

Optical digital output: Mini optical terminal

Number of terminals: 1system
(also used for audio output/ input)

SD Playback*8,10,11

Picture Playback: JPEG*7,9,12

Video Playback: MPEG4*5,9

*5 MPEG4 data recorded with the Panasonic SD multi cameras or DVD recorders
Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/G.726 audio system.

*7 Extremely long and slender pictures may not be displayed.

*8 Useable memory capacities: 8MB, 16MB, 32MB, 64MB, 128MB, 256MB, 512MB, 1GB, 2GB

*9 Total maximum number of recognizable picture and video files and folders
Picture: 4000 files and 398 folders
Video: 4000 files and 398 folders

*10 SD card formatted with equipment conforming to SD File System specifications Ver.1.01 such as Panasonic SD multi cameras or DVD recorders (Conforming to FAT 12 standard and FAT 16 standard)

*11 miniSD™ card is supported. (miniSD™ adaptor is required.)

*12 Conforming to SD Picture specifications
Picture resolution: between 160 × 120 and 6144 × 4096 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4)

Headphone output:

Output:

Stereo mini-jack (3.5mm)

Number of terminals: 2systems

Battery duration

*CGR-H712: Option *Room temperature *using headphones	-When brightness is set to “-5” while playing DVD 6 hours (CGR-H713) / 3 hours (CGR-H712) -When brightness is set to “0” while playing DVD 4 hours (CGR-H713) / 2 hours (CGR-H712) -When brightness is set to “+5” while playing DVD 3 hours (CGR-H713) / 1.5 hours (CGR-H712) -When LCD panel is off while DVD playing 12 hours (CGR-H713) / 6 hours (CGR-H712) -When brightness is set to “-5” while playing SD 7 hours (CGR-H713) / 3.5 hours (CGR-H712) -When brightness is set to “0” while playing SD 5 hours (CGR-H713) / 2.5 hours (CGR-H712) -When brightness is set to “+5” while playing SD 4 hours (CGR-H713) / 2 hours (CGR-H712) -When LCD panel is off while SD playing 18 hours (CGR-H713) / 9 hours (CGR-H712)
Battery recharge time / (at 20°C)	8 hours (CGR-H713) / 6 hours (CGR-H712)
Pickup:	
Wave length:	662nm/ 785nm (DVD/CD)
Laser power:	CLASS / CLASS (DVD/CD)
Power supply:	DC 12V (DC IN terminal) / DC 7.2V (Exclusive battery terminal)
Power consumption (Using included AC adaptor):	23W (Unit only: 20W)
Power consumption in Standby mode (Using included AC adaptor):	0.3W
Power consumption in Recharge mode (Using included AC adaptor):	13W
AC adaptor:	
Power source:	AC 110-240V, 50/60Hz
Power consumption:	36W
DC output:	12V, 2A
Car DC adaptor:	
DC output:	12V 2A (Vehicle with 12V battery only)
Battery pack CGR-H713 (lithium ion):	
Voltage:	7.2V
Capacity:	6750mAh

Dimensions (excluding protrusions and battery):	**287.6(W) × 216.0(D) × 50.3*(H) mm [11 21/64" (W) × 8 33/64" (D) × 2" (H)]**
	***30.5mm (1 13/64") at lowest point**
	[D=238.5mm (9 25/64") including battery]
	[H=55.3mm (2 3/16") including battery]
Mass	
(including battery):	**approximately 1985g (70.01 oz)**
(without battery):	**approximately 1638g (57.77 oz)**

solder:

This model uses lead free solder (PbF).

Note

Specifications are subject to change without notice.

Mass and dimensions are approximate.

Manufactured under license from Dolby Laboratories.

"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

"DTS" and "DTS 2.0+ Digital Out" are trademarks of Digital Theater Systems, Inc.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, and 4,819,098, licensed for limited viewing uses only.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

1. SAFETY PRECAUTIONS

1.1. GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

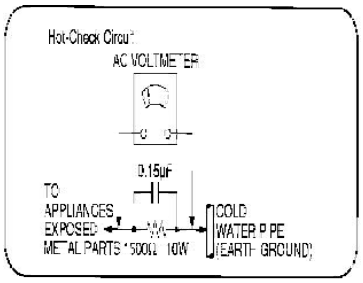
1.1.1. LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1M and 5.2M . / When the exposed metal does not have a return path to the chassis, the reading must be .

1.1.2. LEAKAGE CURRENT HOT CHECK

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.

2. **Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe.**



3. **Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.**
4. **Check each exposed metallic part, and measure the voltage at each point.**
5. **Reverse the AC plug in the AC outlet and repeat each of the above measurements.**
6. **The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.**

2. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.**
2. **After removing an electrical assembly equipped with ES devices, place**

the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

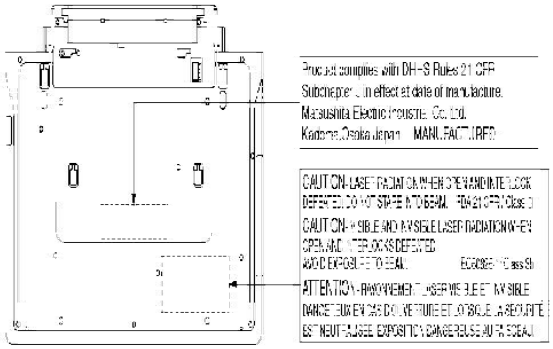
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**
   Caution
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. **Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).**

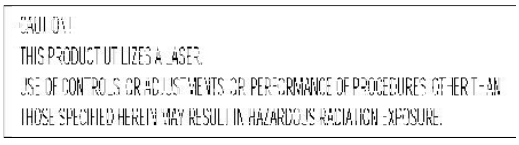
3. PRECAUTION OF LASER DIODE

CAUTION:

This product utilizes a laser diode with the unit turned "on".
Invisible laser radiation is emitted from the pickup lens.
Wavelength:362nm~785nm
Maximum output radiation power from pickup: 100 µ
WAVDE
Laser radiation from the pickup lens is safety level, but be sure the following:

1. Do not disassemble the optical pickup unit since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.


Product complies with DH-S Rules 21 CFR
Subchapter J in effect at date of manufacture.
Matsushita Electric Industrial Co., Ltd.
Kadoma, Osaka Japan MANUFACTURED
CAUTION-LASER RADIATION WHEN OPEN AND INTERLOCK
DEFEATED DO NOT STARE IN TO BEAM. IEC825 1 Class 3
CAUTION-VISIBLE AND INVISIBLE LASER RADIATION WHEN
OPEN AND INTERLOCKS DEFEATED
AVOID EXPOSURE TO BEAM. IEC60825-1 Class 3B
ATTENTION-RAYONNEMENT LASER VISIBLE ET INVISIBLE
DANGEREUX EN CAS D'OUVERTURE ET D'INTERLOCK AFFAIBLIE
EVITEZ TOUTE EXPOSITION DANGEREUSE AU FAISCEAU


CAUTION
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN
THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

4. HOW TO REPLACE THE LITHIUM BATTERY

This model is using a lithium battery for the remote control ass'y.

NOTE:

The lithium battery is a critical component. (Type No.: CR2025 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

(For English)

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

(For French)

PRECAUTION

Le fait de remplacer incorrectement la pile peut presenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

5. LITHIUM ION BATTERY

6. Service caution based on legal restrictions

6.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.
The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86 F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of “PbF” is printed either foil side or components side on the PCB using the lead free solder. (See right figure)	

Service caution for repair work using Lead Free Solder (PbF)
- The lead free solder has to be used when repairing the equipment for which the lead free solder is used.(Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350+-30 degrees C (662+-86 F).

Recommended Lead Free Solder (Service Parts Route.)
- The following 3 types of lead free solder are available through the service parts route.
RFKZ03D01K----------(0.3mm 100g Reel)
RFKZ06D01K----------(0.6mm 100g Reel)
RFKZ10D01K----------(1.0mm 100g Reel)

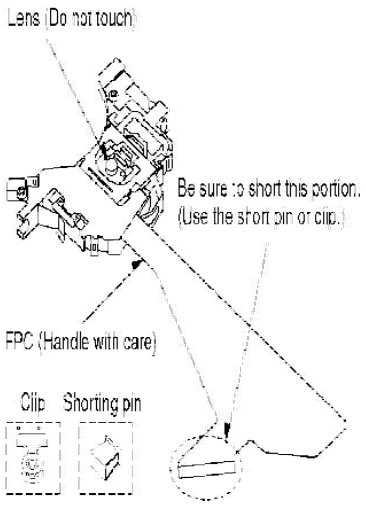
Note
*** Ingredient: tin (Sn) 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%**

7. HANDLING PRECAUTIONS FOR TRAVERSE DECK

The laser diode in the optical pickup may break down due to potential difference caused by static electricity of clothes or human body.
So be careful of electrostatic break down during repair of the optical pickup.

7.1. Handling of optical pickup

1. **Do not subject the optical pickup to static electricity as it is extremely sensitive to electrical shock.**
2. **To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into the flexible board (FPC Board). / When removing or connecting the short pin, finish the job in as short times as possible.**
3. **Be careful not to apply excessive stress to the flexible board (FPC Board).**
4. **Do not turn the variable resistor (Laser power adjustment). / It has already been adjusted.**



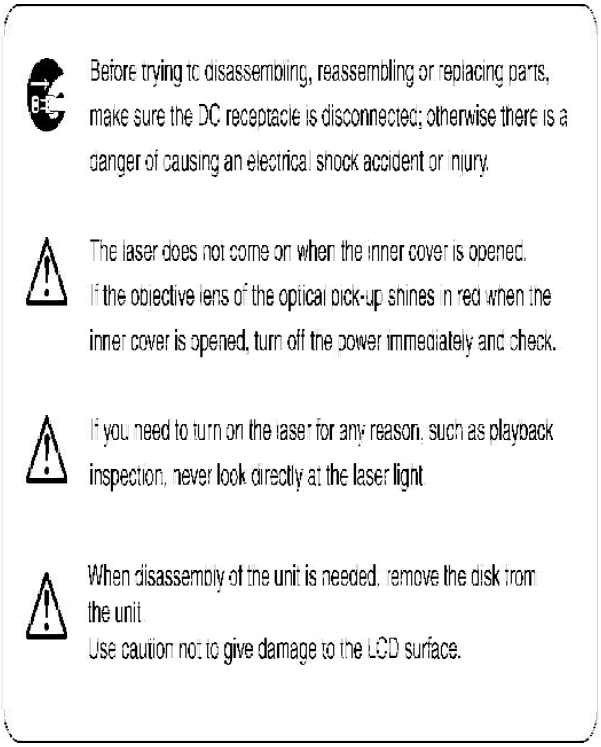
7.2. Grounding for electrostatic breakdown prevention

1. **Human body grounding / Use the antistatic wrist strap to discharge the static electricity from your body.**
2. **Work table grounding / Put a conductive material (sheet) or steel sheet on the area where the optical pickup is placed and ground the sheet.**

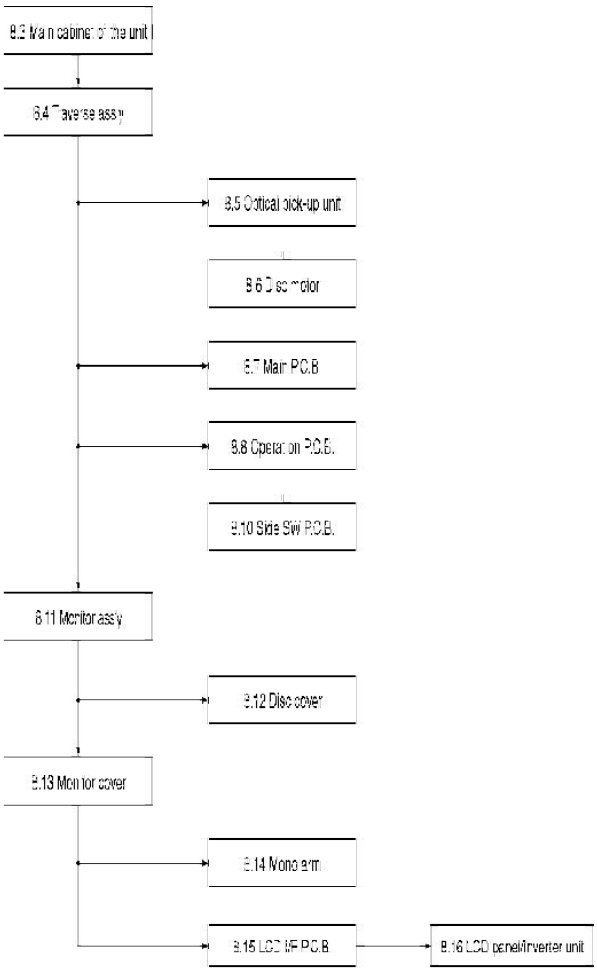
Caution

The static electricity of your clothes will not be grounded through the wrist strap. So take care not to let your clothes touch the optical pickup.

8. DISASSEMBLY, REASSEMBLY AND SERVICE POSITION

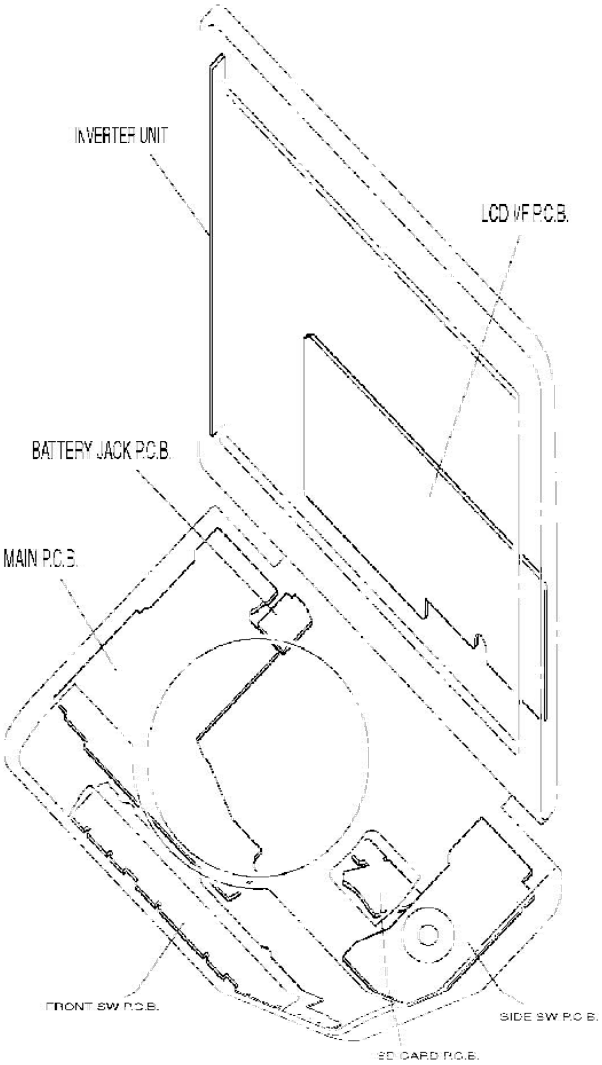

Before trying to disassembling, reassembling or replacing parts, make sure the DC receptacle is disconnected; otherwise there is a danger of causing an electrical shock accident or injury.
The laser does not come on when the inner cover is opened. If the objective lens of the optical pick-up shines in red when the inner cover is opened, turn off the power immediately and check.
If you need to turn on the laser for any reason, such as playback inspection, never look directly at the laser light.
When disassembly of the unit is needed, remove the disk from the unit.
Use caution not to give damage to the LCD surface.

8.1. Disassembly



<Caution to be taken when disassembling and reassembling the unit>

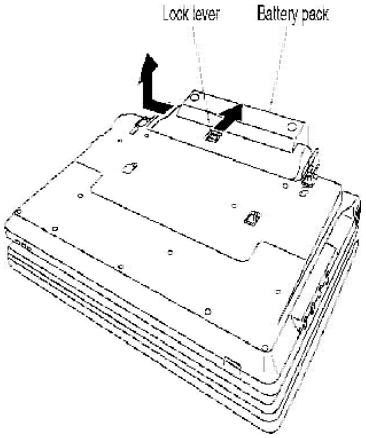
8.2. P.C.B. location



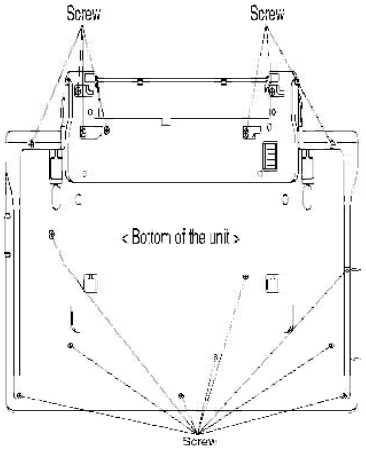
8.3. Main cabinet of the unit

<Removing battery pack>

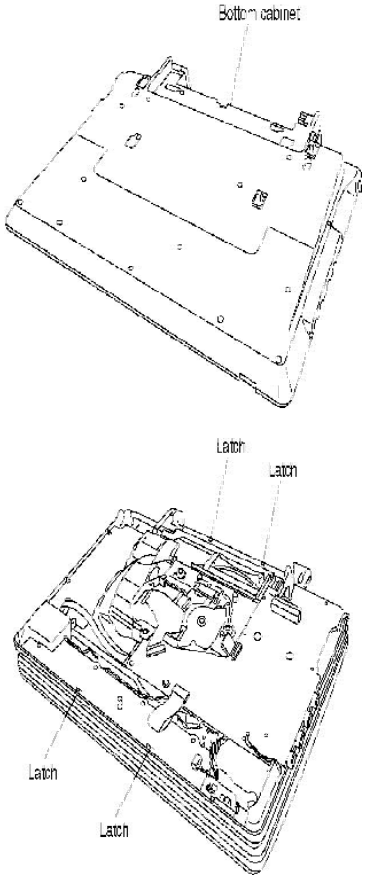
Release the lock lever and remove the battery pack in the direction of the arrow.



1. Remove the 16 screws from the bottom of the unit.



2. Release the latches and remove the bottom cabinet.



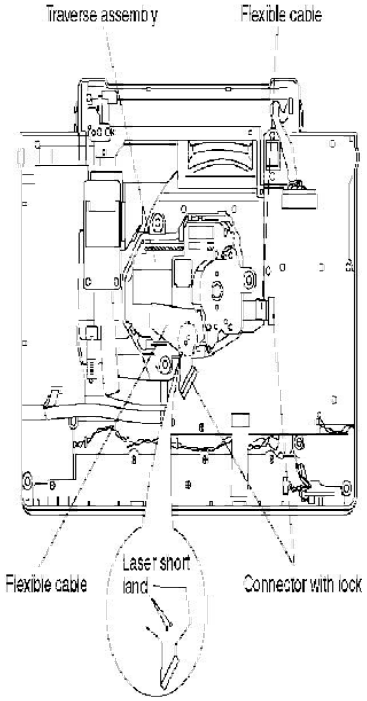
8.4. Traverse assembly

> ⚠ Take antistatic measures before servicing the traverse unit and its related devices.

8.4.1. Removing traverse assembly

1. Solder the 2 laser short lands on the flexible cable.

2. Unlock the connectors and remove the flexible cables.

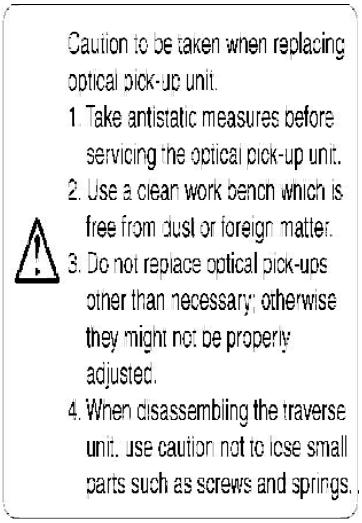


8.4.2. Reinstalling traverse assembly

1. **Reinstall the traverse assembly to the specified pin of the unit.**
2. **Reinstall the flexible cable of the optical pickpup unit and lock it securely.**
3. **Remove the solder of each laser short land of the flexible cable.**
   Caution:
   Remove the solders completely: otherwise the laser diode won't emit light.
4. **Reinstall the spindle flexible cable as shown figure.**

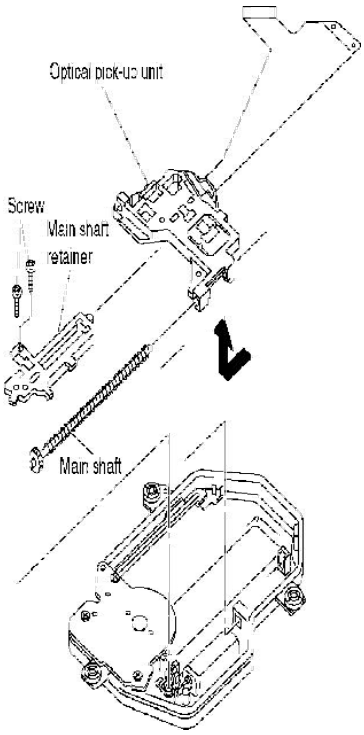
8.5. Optical pick-up unit

8.5.1. Removing optical pick-up unit


Caution to be taken when replacing optical pick-up unit.
1. Take antistatic measures before servicing the optical pick-up unit.
2. Use a clean work bench which is free from dust or foreign matter.
3. Do not replace optical pick-ups other than necessary; otherwise they might not be properly adjusted.
4. When disassembling the traverse unit, use caution not to lose small parts such as screws and springs.
The traverse unit is a precision optical part. Do not touch the lens or give shock to the traverse.

Make sure that the traverse assembly removed before trying to remove the optical pick-up unit. When removing the traverse assembly, solder the two laser short lands on the flexible cable of the optical pick-up unit.

1. **Remove the two screws securing the main shaft retainer.**
2. **Remove the main shaft retainer.**
3. **Slide the main shaft in the direction indicated by the arrow to remove the optical pick-up unit.**



8.5.2. Reinstalling optical pick-up unit

The optical pick-up unit is factory adjusted. Do not touch the adjustment screw.

1. Reassemble the disassembled parts in the reverse order of disassembly.
2. When reinstalling the traverse assembly on the main unit after installing the optical pick-up unit, make sure to remove the solder from each of the two laser short lands on the flexible cable.

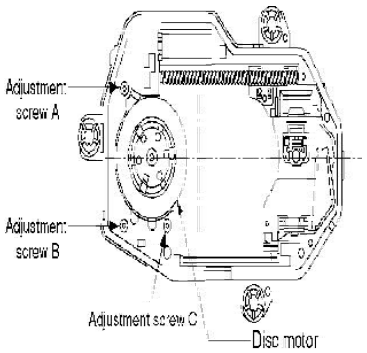
Caution:

- Remove the solders completely; otherwise the laser diode won't emit light.
- After replacing the optical pick-up unit, check the quality of images played back and make optical adjustment.

8.6. Disc motor

8.6.1. Removing disc motor

1. Remove the adjustment screws A, B, and C.
2. Remove the disc motor.



8.6.2. Caution to be taken when replacing the disc motor

1. The mounting screws of the disc motor also serve as adjustment screws. When reinstalling the disc motor, first turn the screws A, B, and C as far as they go by usual force to secure them (do not overtighten).
2. Back off the adjustment screws A and C two complete turns and secure them.
3. Back off the adjustment screw B one and a half turns and secure them.

   - This makes it nearly possible to play back disks and adjust the jitter.
   - Thereafter, adjust the adjustment screws C and A as indicated.

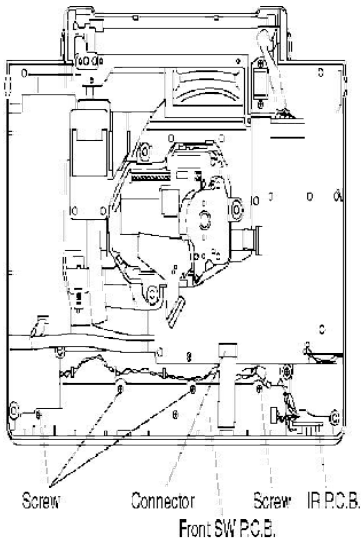
8.7. Main P.C.B.

1. Remove the 4 connectors.
2. Remove the 7 screws and remove the main P.C.B., battery jack P.C.B. and speakers.

8.8. Front SW P.C.B.

1. Remove the connector.

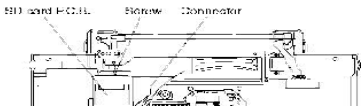
2. Remove the 4 screws and remove the front SW P.C.B. and IR P.C.B..



8.9. SD card P.C.B.

1. Remove the connector.

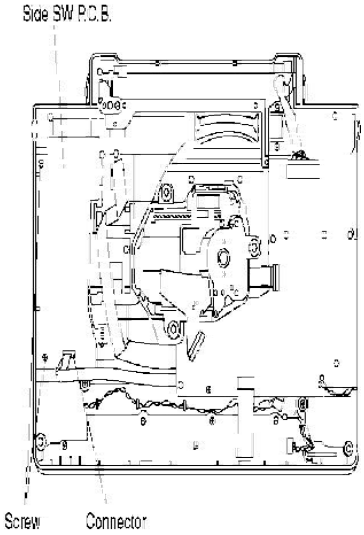
2. Remove the 3 screws and remove the SD card P.C.B..



8.10. Side SW P.C.B.

1. Remove the connector.

2. Remove the 2 screws and remove the side SW P.C.B..

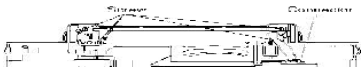


8.11. Monitor assembly

Take care not to get an electrical shock accident by touching the high-voltage part when checking for conduction after disassembly.
Do not give damage to the LCD surface.

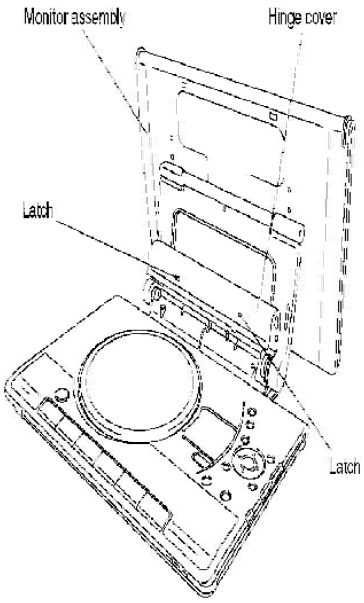
1. Remove the connector.

2. Remove the 5 screws.



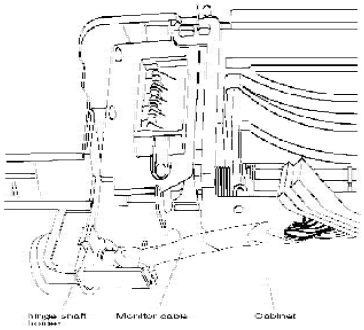
1. Release the latches and remove the hinge cover.

2. Remove the monitor assembly.



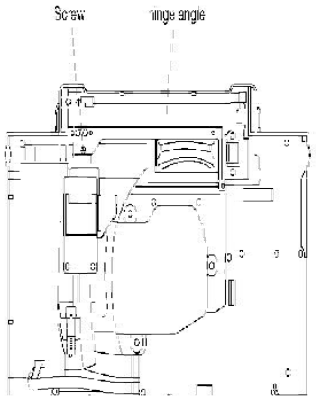
<Caution to be taken when installing monitor assembly>

1. Install the hinge shaft holder on the cabinet as shown figure.

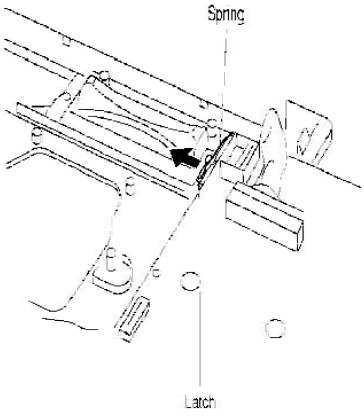


8.12. Disc cover

1. Remove the screw and remove the hinge angle.



2. Remove the spring into the direction of the arrow.



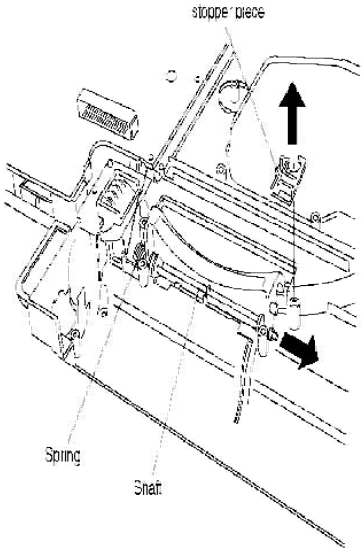
3. Remove the 2 screws and remove the disc hinge cover.

4. Remove the stopper piece into the direction of the arrow.

5. Remove the shaft into the direction of the arrow.

Caution:

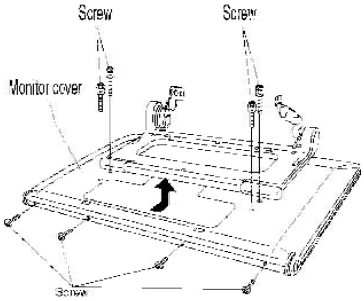
Please don't lose the spring



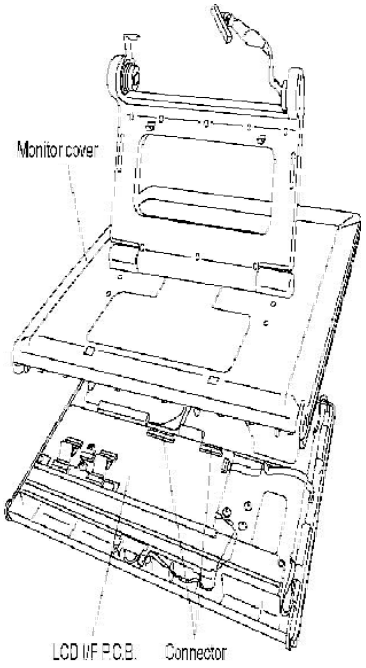
8.13. Monitor cover

1. Remove the 8 screws

2. Remove the monitor cover into the direction of the arrow.

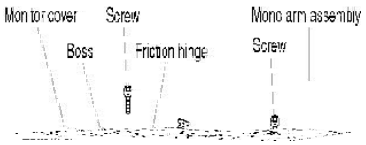


3. Remove the 2 connectors.

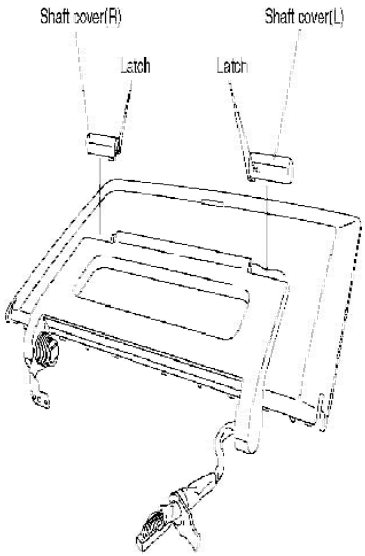


8.14. Mono arm

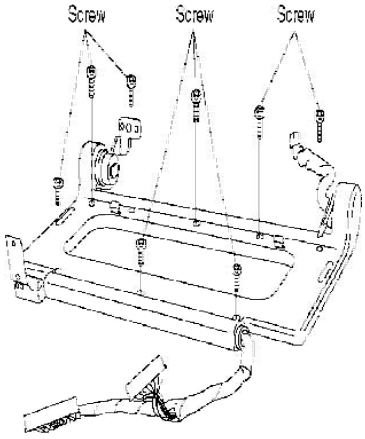
1. **Remove the 2 screws.**
2. **Release the friction hinge from boss and remove the mono arm assembly.**



3. **Release the latches and remove the shaft covers.**



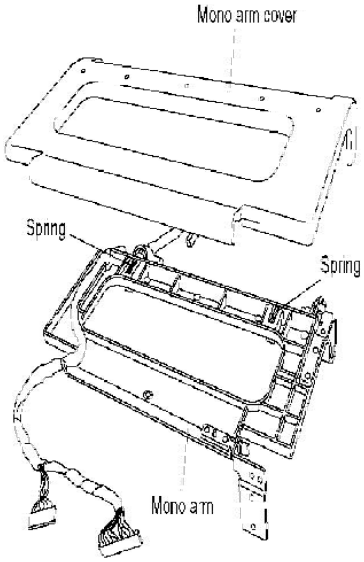
4. Remove the 8 screws.



5. Remove the mono arm cover.

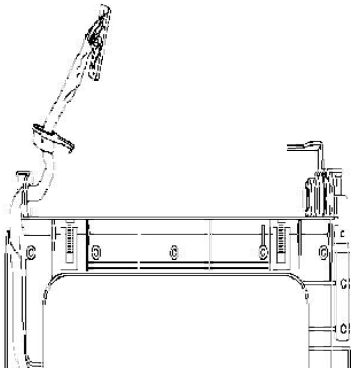
Caution:

Please don't lose the spring



<Caution to be taken when installing mono arm>

1. Install the monitor cable in the mono arm as shown figure.



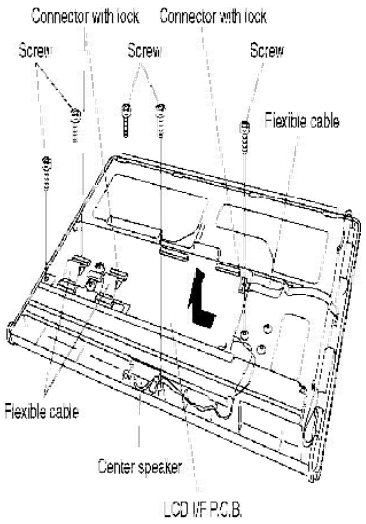
8.15. LCD I/F P.C.B.

1. Unlock the connector and remove the 3 flexible cables.

2. Remove the 5 screws.

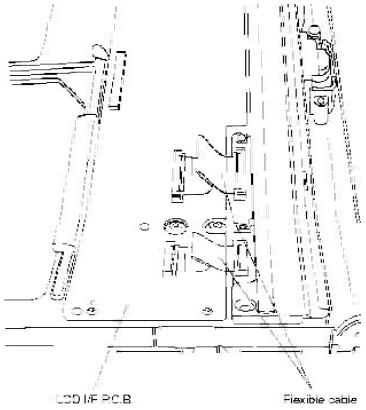
3. Remove the center speaker.

4. Remove the LCD I/F P.C.B. into the direction of the arrow.



<Caution to be taken when installing LCD I/F P.C.B.>

1. Reinstall the flexible cables as shown figure.

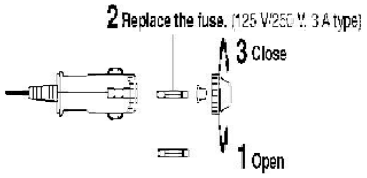


8.16. LCD panel and inverter unit

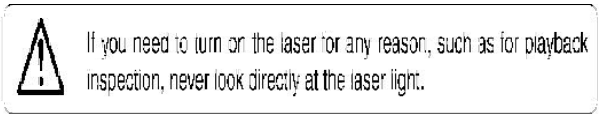
1. Remove the LCD panel and inverter unit into the direction of the arrow.

8.17. Replacing the fuse in the car dc adaptor

- Replace only with the specified 125V/250V, 3A fuse. Use of any other type can cause fire.



8.18. Service position



8.18.1. Board checks

1. Connect the main P.C.B and the traverse assembly with an extension cable.
2. Install the traverse assembly to the tilt adjustment jig using three screws and three washers.

Caution:

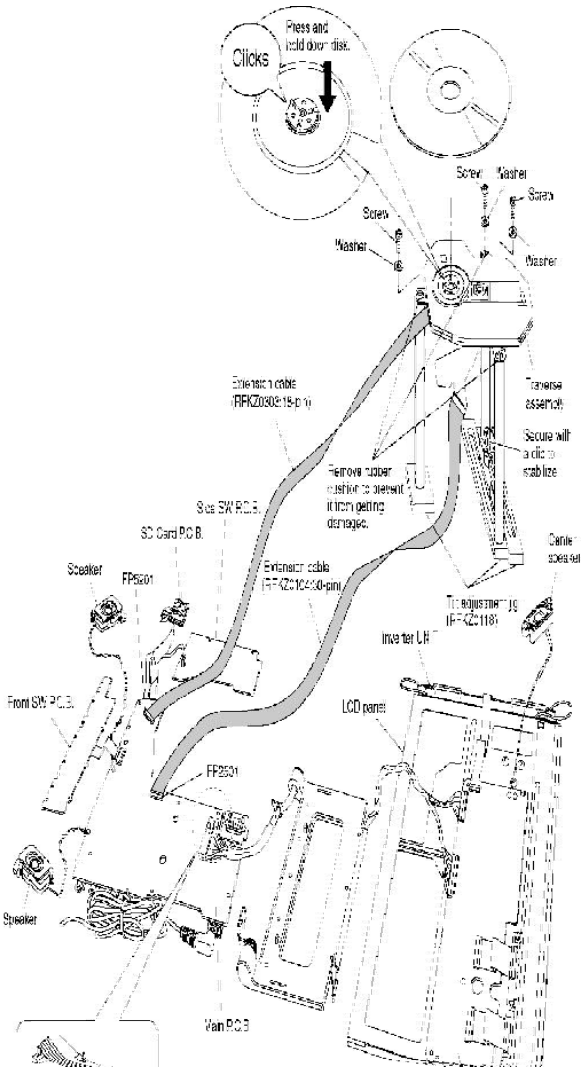
- Remove the rubber cushion from the traverse assembly to prevent it from getting damaged.

3. Install a dick on the traverse assembly.

Caution:

- Make sure the disk is securely installed on the disk motor.

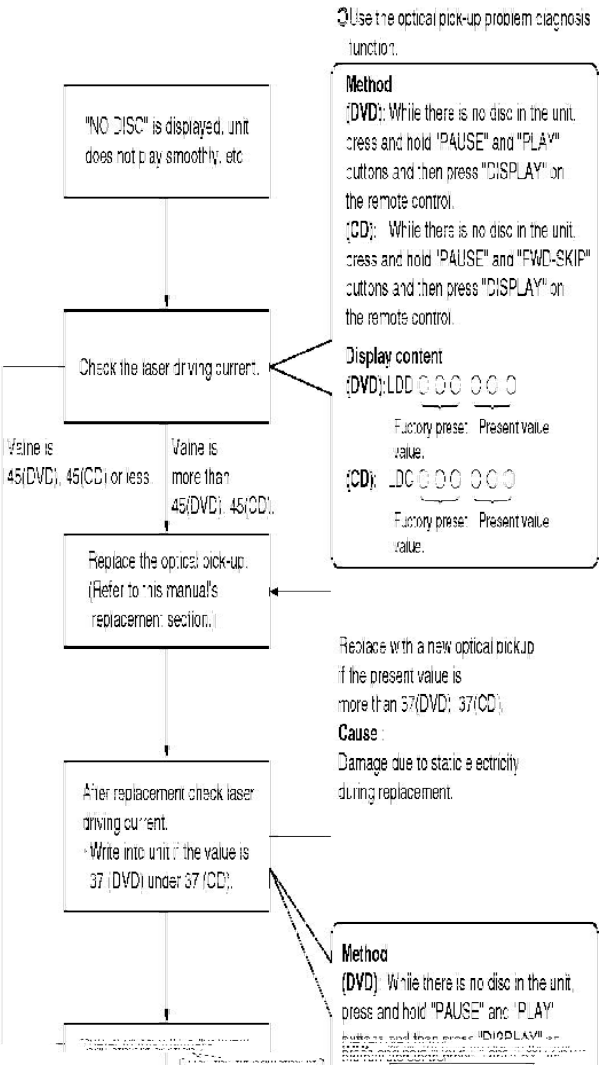
4. Remove the main P.C.B., operation P.C.B., inverter P.C.B., and LCD panel as shown below.
5. The disk cannot be played back with the disk cover removed. Press and hold down the S5201 and S5202. (Secure with cellulose tape.)



9. SELF-DIAGNOSIS FUNCTION AND SERVICE MODE

9.1. Optical Pickup Breakdown Diagnosis

As a new feature, this unit has an “optical pick-up problem diagnosis function” and “a tilt adjustment confirmation function” built in. Use the following procedure to efficiently determine the problem and adjust tilt.If "NO DISC" is displayed, before exchanging the optical pick-up, carry out problem diagnosis first. If the present laser driving current is over 55, the optical pick-up may need to be exchanged.


3)Use the optical pick-up problem diagnosis function.
Method
(DVD): While there is no disc in the unit, press and hold "PAUSE" and "PLAY" buttons and then press "DISPLAY" on the remote control.
(CD): While there is no disc in the unit, press and hold "PAUSE" and "FWD-SKIP" buttons and then press "DISPLAY" on the remote control.
"NO DISC" is displayed, unit does not play smoothly, etc.
Check the laser driving current.
Display content
(DVD):LDD 000 000
Factory preset Present value
value.
(CD): LDC 000 000
Factory preset Present value
value.
Value is 45(DVD), 45(CD) or less.
Value is more than 45(DVD), 45(CD).
Replace the optical pick-up. (Refer to this manual's replacement section.)
Replace with a new optical pickup if the present value is more than 37(DVD), 37(CD).
Cause :
Damage due to static electricity during replacement.
After replacement check laser driving current.
Write into unit if the value is 37 (DVD) under 37 (CD).
Method
(DVD) While there is no disc in the unit, press and hold "PAUSE" and "PLAY"

Note:

Carry out diagnosis within 3 minutes of turning the unit on. (The player's current can increase as it warms up, so turn the unit off and allow it to cool down before diagnosis.)

Cautions to be taken when replacing the optical pickup

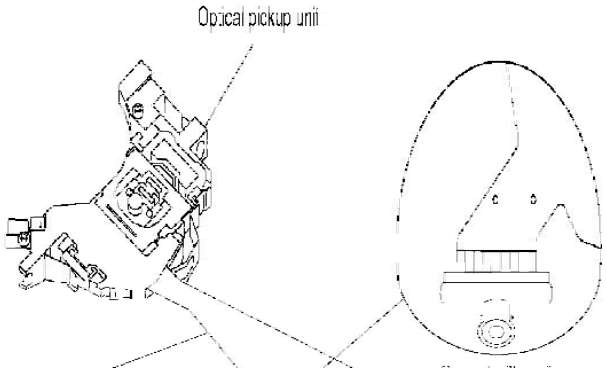
The optical pickup may break down due to the static electricity of human body. Take proper protection measures against static electricity before repairing the parts around the optical pickup. (See the page describing the PREVENTION OF STATIC ELECTRICITY DISCHARGE.)

1. Do not touch the areas around the laser diode and actuator.

2. Do not judge the laser diode with a tester. (The tester will be damaged easily.)
3. It is recommended to use a destaticized soldering iron for short-circuiting or removing the laser diode. (Recommended soldering iron) HAKKO ESD Product
4. Solder the land of the flexible cable in the optical pickup.

Note:

- When using a soldering iron which is not destaticized, short-circuit the terminal face of the flexible case with a clip. After that, short-circuit the land.
- After the repairing work is completed, remove the solder according to the correct procedure shown in this Technical Guide.



9.2. UHF displays

Use the internal service mode for evaluation of malfunctions.

Display Method	Display	Diagnosis
Items displayed when in use	CHECK THE DISC	Focus error
	H01	Inner cover trouble
	H02	Spindle servo error
	H03	Traverse error
	H04	Tracking servo error
	H05	Seek error
Press the "0" button on the remote control while holding down the PAUSE and PLAY buttons on the player. The last error code generated is saved in the EEPROM	F0**	Disc format error
	F1**	Disc code error
	F2**	Decoder LSI error
	F5**	DSC
	F6**	ECC error
	F7**	Microcomputer error
	F8**	Microcomputer error

9.3. Service Mode Table 1

The service modes can be activated by pressing various button combination on the player and remote control unit.

Player buttons	Remote control unit buttons	Application	Note
PAUSE / + / PLAY	0	Displaying the UHF display F_ _ _	Refer to sectio 9.2. Self-Diagn Function (UHF Display).
	5	Jitter check, tilt adjustment *Display shows xx_yyyzz "xx" and "zz" shown to the right have nothing to do with the jitter value. "xx" is the error counter, while "zz" is the focus drive value. Refer to section 11.4. for Optical Pickup Tilt Adjustment Procedure.	Refer to sectio 11.4. Optical Pickup Tilt Adjustment
	6	Checking the region numbers and broadcast system	
	7	Checking the program version	Check the IC30 FLASH ROM program.
	9	Lighting Confirmation Function of Display Tube	
	DISPLAY	Checking the laser drive current	Refer to sectio 8.5. Optical Pic Replacement Procedure.
	PAUSE	Writing the laser drive current value after replacing the optical pickup (do not use for anything other than optical pickup replacement)	

Player buttons	Remote control unit buttons	Application	Note
PAUSE BWD-SKIP PLAY	—	The user setting is returned to the state of the factory shipment.	Refer to sectio 9.6. Initializing DVD player.

9.4. DVD Self Diagnostic Function-Error Code

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3	Defec
	U, H error					
U11	Focus error					
U15	DVD-R not finalized					
H01	Tray loading error					
H02	Spindle servo error	(Spindle servo, DSC SP motor, CLV servo error)				
H03	Traverse servo error					
H04	Tracking servo error					
H05	Seek error					
H06	Power error	Cannot switch off the power because of the panel and system computer communication error				
H07	Spindle motor drive error					
	DSC related					
F500	DSC error	DSC stops in the occurence of servo error (starup, focus error, etc)	OPU	DV3.2 (IC3004)	DV3.2 (IC3004)	servo drive
F501	DSC not Ready	DSC-system computer communication error (Communication failure caused by idling of DSC)	DV3.2 (IC3004)	DV3.2 (IC3004)		
F502	DSC Time out error	Similar disposal as F500	OPU	DV3.2 (IC3004)	DV3.2 (IC3004)	servo drive
F503	DSC communication Failure	Communication error (result error occured although communication command was sent)	DV3.2 (IC3004)	DV3.2 (IC3004)	EEPROM (IC3002)	
F505	DSC Attention error	Similar disposal as F500	OPU	DV3.2 (IC3004)	DV3.2 (IC3004)	servo drive
F506	Invalid media	Disc is flipped over, TOC unreadable, incompatible disc	DISC	DV3.2 (IC3004)	DV3.2 (IC3004)	DV3. (IC300
	ODC related					

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3	Defec
F600	Access failure to management information caused by demodulation error	Operation stopped because navigation data is not accessible caused by the demodulation defect	DV3.2 (IC3004)	DV3.2 (IC3004)	DV3.2 (IC3004)	
F601	Indeterminate sector ID requested	Operation stopped caused by the request to access abnormal ID data	DV3.2 (IC3004)	DV3.2 (IC3004)	DV3.2 (IC3004)	
F602	Access failure to LEAD-IN caused by demodulation error	LEAD IN data unreadable				
F603	Access failure to KEYDET caused by demodulation error	Access failure to CSS data of disc				
F610	ODC abnormality	No permission for command execution	DV3.2 (IC3004)			
F611	6626 QCODE don’t read Error	Access failure to seek address in CD series	DV3.2 (IC3004)			
F612	No CRC OK for a specific time	Access failure to ID data in DVD series	DV3.2 (IC3004)			
F630	No reply to KEY DET enquiry	(for internal use only)				
F631	CPPM KEY DET is not available till the FILE terminal	(CPPM file system is unreadable caused by scratches)	DISC	CPPM		
F632	CPPM KEY DET is not available	Been revoked or falsified	DISC	EEPROM (IC3002)	CPPM (*1)	
	Disc code					
F103	Illegal highlight Position	Big possibility of disc specification violation during highlight display	DISC			
	HIC Error					
F4FF	Force initialize failure (time out)		EEPROM (IC3002)	DV3.2 (IC3004)	DV3.2 (IC3004)	DV3. (IC30
	Micro computer error					
F700	MBX overflow	When replying message to disc manager				
F701	Message command does not end	Next message is sent before replying to disc manager				

Error Code	Error Content	Additional error explanation	Defect 1	Defect 2	Defect 3	Defec
F702	Message command changes	Message is changed before it is sent as a reply to disc manager				
F880	Task number is not appropriate	Message coming from a non-existing task				
F890	Sending message when message is being sent to AV task	Sending message to AV task				
F891	Message couldn't be sent to AV task	Begin sending message to AV task				
F893	FROM falsification		FROM (IC3001)	DV3.2 (IC3004)		
F894	EEPROM abnormality		EEPROM (IC3002)	Serial / communication on Ione		
F895	Language area abnormality	Firm version agreement check for factory preset setting failure prevention	FROM (IC3001)			
F896	No existence model	Firm version agreement check for factory preset setting failure prevention	FROM (IC3001)			
F897	Initialize is not completed	Initialize completion check for factory preset setting failure prevention				
F8A0	Message command is not appropriate	Begin sending message to AV task				

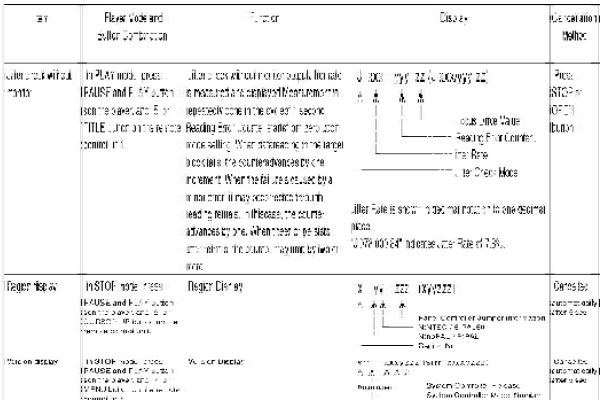
Note:
An error code will be canceled if a power supply is turned OFF.
***1: CPPM is the copy guard function beforehand written in the disc for protection of copyrights.**

9.5. Last Error Code saved during NO PLAY

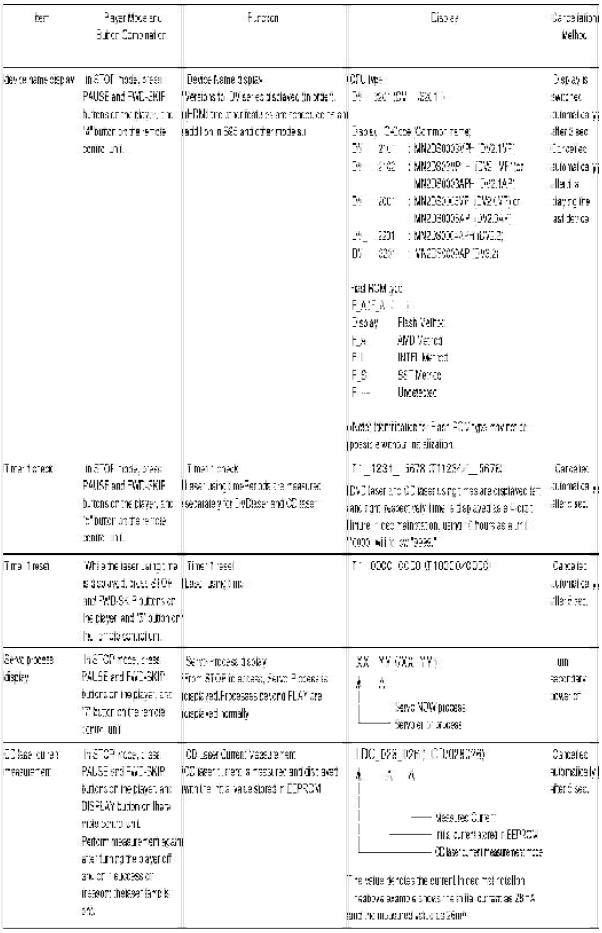
Error code	Error Content
F0BF	6) Cannot playback because physical layer is not recoginizable
F0C0	8) DVD: Cannot playback because it is not DVD Video/Adio/ VR
F0C1	9) DVD: Prohibited by the restricted region code
F0C2	A) DVD: PAL restricted playback
F0C3	B) DVD: Parental lock setting prohibits the playback of the entire title
F0C4	C) VCD: Prohibited because it is in PHOTO CD fromat
F0C5	VCD/CD: Prohibited because it is CDROM without CD-DA

9.6. Service mode table

Pressing various button combinations on the player and remote control unit can activate the service modes.



Item	Parameters and Button Combination	Function	Display	Cancellation Method
Initial laser current measurement	In ETC mode, press [PAUSE] key. A numeric on the player and [PAUSE] button on the remote control unit.	Initial laser current measurement that was executed and stored in EEPROM as the values	LDD 084 082 (LDD:0084:0082) Measurement CD Laser Current Measurement DVD Laser Current Measurement Laser Current Measurement Mode The value can be set in decimal number. The above example shows that the initial values are 84 for laser current for DVD laser and CD laser respectively when the laser is new one.	Cancelled automatically after 5 sec.
Laser current initialization	In ETC mode, press [PAUSE] and [PLAY] buttons on the player and [DISPLAY] button on the remote control unit.	Laser Current Clear Laser current is measured and stored with the initial value stored in EEPROM. Wrong laser current is cleared when initial value is not written in EEPROM.	LDD 084 082 (LDD:0084:082) Current Measurement Initialization in EEPROM Laser Current Measurement Mode The value can be set in decimal number. The above example shows that initial values when the laser was new ones are 84 for CD laser and 82 for DVD laser.	Cancelled automatically after 5 sec.
Region and system confirmation version display	In ETC mode, press [PAUSE] and [SKIP] buttons on the player and [DISPLAY] button on the remote control unit.	Region and System Confirmation version display.	(XXXYZZZZ) System Connection Region System Connection Type System Connection Software Region No.	Cancelled automatically after 5 sec.
OPPW/OPFM key confirmation	In ETC mode, press [PAUSE] and [FWD-SKIP] buttons on the player, and "1" button on the remote control unit.	OPPW/OPFM Key Confirmation When the press button was pressed, the key of EEPROM is normal or not is output. If the unit is displayed indicating opposition, the wrong applied disc player is not guaranteed. When the unit is not displayed, the unit is not normal or other because the unit is powered incorrectly is used.	OPPW key normal OPFM key is abnormal OPPW key normal. The optical unit is compatible to the disc player. OPFM key is abnormal.	Cancelled automatically after 5 sec.
Communication error display	In ETC mode, press [PAUSE] and [FWD-SKIP] buttons on the player, and "2" button on the remote control unit.	Communication error display Number of communicable times per 10 communications is displayed.	ERR:02 (ERR:0200)	Cancelled automatically after 5 sec.
Debug error code display mode	In ETC mode, press [PAUSE] and [FWD-SKIP] buttons on the player, and "3" button on the remote control unit.	Debug error code display mode List of debug variables is displayed on GUI.	Normal	Turn secondary power off and on.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]



9.7. Lens cleaning

When cleaning the lens, use the lens cleaner which product part No. SZZP1038C.

10. SERVICE PRECAUTIONS

10.1. Recovery after the dvd player is repaired

- When FROM or main P.C.B. is replaced, carry out the recovery processing to optimize the drive.
Playback the recovery disk to process the recovery automatically.

- Recovery disc (Product number: RFKZD03R005)

- Performing recovery

1. **Load the recovery disc RFKZD03R005 on to the player and run it.**
2. **Recovery is performed automatically. When it is finished, a message appears on the screen.**
3. **Remove the recovery disc.**
4. **Turn off the power.**

Note:

This unit requires no initialization process carried out after the traditional DVD players were repaired. When the recovery measures are taken, the customer setting will return to the factory setting as same as the procedure described in item of "Initialization" in 9.6. is carried out. Write down the contents of the setting before recovery processing, and reset the player.

10.2. Firmware version-up of the DVD player

- The firmware of the DVD player may be renewed to improve the quality including operationability and playerbility to the substandard discs.processing to optimize the drive.
  The recovery disc has also firmware version-up.
- After version-up, recovery processing is executed automatically.
- Part number of the recovery disc for version-up will be noticed when it is supplied.
- Updating firmware

1. Load the recovery disc that is supplied to the player and run it.
2. Firmware version of the player is automatically checked. Appropriate message appears whenever necessary.
3. Using remote controller's cursor key, select whether version updating is to be done or not. (Selection of Yes/No)
4. a. If Yes is selected, version updating is performed.
   b. If No is selected, only recovery is performed.
5. a. When updating is finished, remove the disc according to the message appearing on the screen.
   b. Remove the disc according to the message appearing on the screen.
6. Turn off the power.

Note:
If the AC power supply is shut out during version-up due to a power failure, the version-up is improperly carried out.
In such a case, replace the FROM and carry out the version-up again.

11. ADJUSTMENT PROCEDURES

<Caution>

Be sure to take static electricity countermeasures before adjusting the optical system. Adjust the optical systems according to the prescribed procedure.

11.1. Service Tools and Equipment

Application	Name	Number
Tilt adjustment	DVD test disc	DVDT-S15AS or DVDT-S01
Inspection	Extension cable (Traverse ass'y to main P.C.B.)	RFKZ0104 (30Pin)
	Extension cable (Traverse ass'y to main P.C.B.)	RFKZ0303 (18Pin)
	Tilt adj. jig	RFKZ0118
Others	Screw lock	RZZ0L01
	Grease	JGS0101
	Lubricating oil	RFKXGUD24
Confirmation	CD test disc	PVCD-K06 or any other commercially available disc
	VCD test disc	PVCD-K06 or any other commercially available disc
	Recovery disc	RFKZD03R005

11.2. Important points in adjustment

11.2.1. Important points in optical adjustment

- Optical pickup tilt adjustment is needed after replacement of the following components.

1. Optical pickup unit

2. Disc motor

3. Traverse motor

4. Optical pickup peripheral parts (such as rail)

Notes
Adjustment is generally unnecessary after replacing other parts of the traverse unit. However, make adjustment if there is a noticeable degradation in picture quality.
Optical adjustments cannot be made inside the optical pickup.

11.2.2. Important points in electrical adjustment

- Follow the adjustment procedures described in this Manual.

11.3. Storing and Handling Test Discs

-Surface precision is vital for DVD test discs. Be sure to store and handle them carefully.

1. Do not place discs directly onto the workbench, etc., after use.
2. Handle discs carefully in order to maintain their flatness. Place them into their case after use and store them vertically. Store discs in a cool place where they are not exposed to direct sunlight or air from air conditioners.
3. Accurate adjustment will not be possible if the disc is warped when placed on a surface made of glass, etc. If this happens, use a new test disc to make optical adjustments.
4. If adjustment is done using a warped disc, the adjustment will be incorrect and some discs will not be playable.

11.4. Optical adjustment

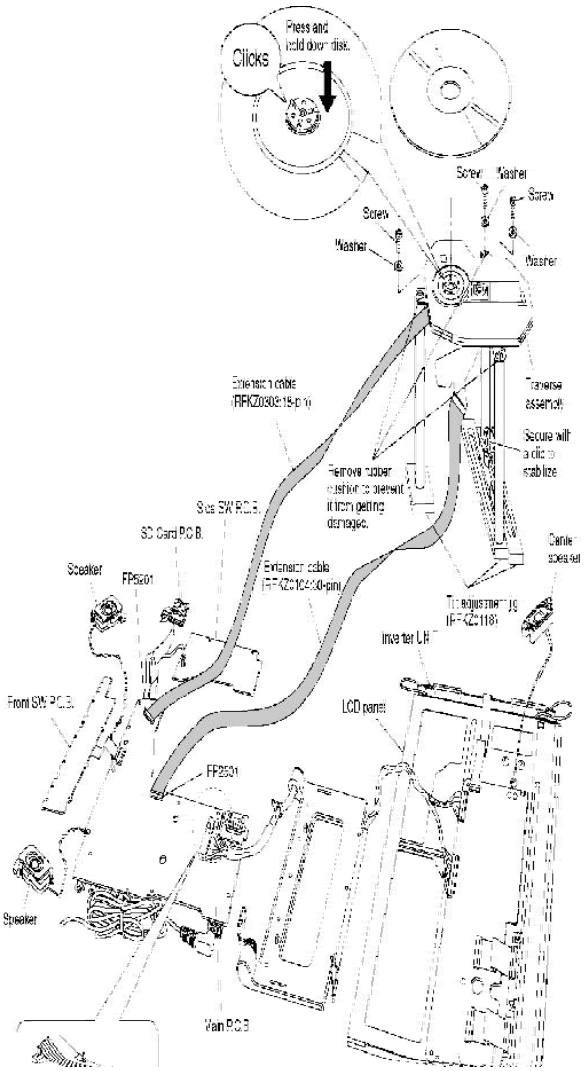
11.4.1. Optical pick gate adjustment

Measurement point	Adjustment point	Mode	Disc
-----	Tangential adjustment screw (Adjustment screw A) Radial tilt adjustment screw (Adjustment screw B)	Tracking servo "ON" Tracking servo "ON"	DVDT-S01/S15AS
Measuring apparatus		Adjustment value	
None (Use the service indication on the main unit)		Adjust the jitter value to the minimum level.	

Remove the solder shorts before trying to make the adjustment.

11.4.1.1. Preparations

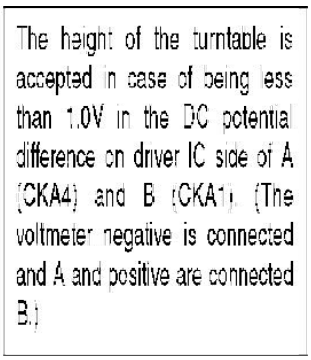
1. **Connect the main P.C.B. to the traverse ass'y with the extension cable.**
2. **Install the traverse ass'y to the tilt adjustment jig with three screws and three washers.**
   Caution
   Remove the rubber cushion of the traverse ass'y.
3. **Install the traverse ass'y to the disc.**
   Caution
   Make sure the disc is installed on the disc motor securely.
4. **Disassemble the Main P.C.B., Operation P.C.B., Inverter P.C.B. and LCD panel as shown in figure below.**
5. **The disc cannot be played back with the Disc cover attached. Press and hold down the S5201 and S5202 (Secure with cellulose tape)**



11.4.1.2. Adjustment

1. Play back the disc (DVDT-S01/S15AS) and make sure the RF signal is outputted.

2. **Play back the areas within a radius of 40 ± 1 mm of the disc (middle circumference).**
3. **Turn the adjustment screw C to minimize the jitter value in the radial direction.**
   (*Once turn the screw to the full position and then back off. You should finish tightening in the tightening direction.)
4. **Turn the adjustment screw A to minimize the jitter value in the tangential direction.**
   (*Once turn the screw to the full position and then back off. You should finish tightening in the tightening direction.)
5. **DISC height measurement (Measure the middle of the deflection of the disc and motor surface.)**


The height of the turntable is accepted in case of being less than 1.0V in the DC potential difference on driver IC side of A (CKA4) and B (CKA1). (The voltmeter negative is connected and A and positive are connected B.)

***If the measured height is out of range, adjust to the specified value using the adjustment screws A, B, and C (by the same angle).**

11.4.1.3. Checking after adjustment

Play back the test disc and ordinary discs to make sure that there is not any deterioration of image quality or missing of sound at the inner, middle, and outer circumferences.

11.5. Electrical adjustment (LCD)

[How to enter into the LCD panel adjustment mode]
Play back the specified video signal (10 steps, color bas signal).
Press and hold down "Back skip" and "Pause" of the main unit at the same time while pressing "Menu" on the remote control unit.
[The DVD player is now in the FT02 mode]
Press the "Forward skip button twice to enter into the FT04 mode (LCD panel adjustment mode).
Press the "Playback" button to play back the signal which has been played back before stopping and then, press the "Pause (still) button.
[How to exit to normal mode]
(Exit the F4 mode)
1. Turn off the primary power supply (Remove the DC power supply).
Turn on the power supply. Press the "Stop" to stop the system.
Press "Cancel" on the remote control unit (The Cancel key is enabled only when the system is stopped.)

- **Whenever the LCD panel is replaced, make the following checks and adjustments.**
- **Press the "Enter" key and fix the settings.**
- **When the EEPROM" (IC3002) of the Main P.C.B. is replaced, call up the LCD Panel adjustment mode (FT04) and execute the AUDIO on the remove control unit and then check the condition of the screen. Make adjustments as necessary.**

11.5.1. Adjusting VCO oscillation frequency

Adjustment is required when	Check point	
The synchronization of the LCD screen is irregular after any VCO-related circuit part is replaced	TP8201	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “1” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and ” ”buttons on remote controller, set the right side number to “71”.	-----	

11.5.2. Adjusting DC offset of impressed voltage

Adjustment is required when	Check point	
Noise such as horizontal stripes is found on the screen.	TL8401	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “3” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “and” ”buttons on remote controller, set the right side number to “Al”.	10step monochrome	

11.5.3. Adjusting white balance red/subcontrast red

Adjustment is required when	Check point	
Remarkable deviation in white balance is found	TL8602	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “6” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	

(White balance) Press “ “and “ “ buttons on remote controller, set the number of center to “80”. (Sub contrast) Press “ “ and “ “ buttons on remote controller, set the right side number to “7E”.	10step monochrome

11.5.4. Adjusting whitebalance blue/subcontrast blue

Adjustment is required when	Check point	
Remarkable deviation in white balance is found	TL8604	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “7” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
(White balance) Press “ “and “ “ buttons on remote controller, set the number of center to “71”. (Sub contrast) Press “ “and “ “ buttons on remote controller, set the right side number to “84”.	10step monochrome	

11.5.5. Adjusting amplitude of impressed voltage

Adjustment is required when	Check point	
-----	TL8401	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “2” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and “ “ buttons on remote controller, set the right side number to “15”.	10step monochrome	

11.5.6. Adjusting pedestal

Adjustment is required when	Check point	
-----	TL8603	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “4” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and “ “ buttons on remote controller, set the number of center to “91”.	10step monochrome	

11.5.7. Adjusting contrast

Adjustment is required when	Check point	
-----	TL8603	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “4” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and “ “ buttons on remote controller, set the right side number to “71”.	10step monochrome	

11.5.8. Adjusting TINT

Adjustment is required when	Check point	
-----	TL8604	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “5” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and “ “ buttons on remote controller, set the number of center to “75”.	75% color bar	

11.5.9. Adjusting color

Adjustment is required when	Check point	
-----	TL8604	
Adjustment procedure	Adjustment UP	Adjustment DOWN
Use “5” on remote control unit.	DVD player/ remote control unit	DVD player/ remote control
Details of adjustment	Input video signal	
Press “ “ and “ “ buttons on remote controller, set the right number to “81”.	75% color bar	

11.6. Electrical check (Video output check)

11.6.1. Checking video output (composite signal)

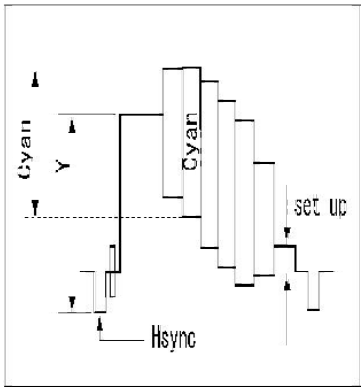
Check point	Mode	Disc
Video output terminal	Color bar playback (75%)	DVDT-S15AS
Measuring apparatus	Check value	
Oscilloscope	Y: 1000 mV ± 100 mV Cyan: 650 mV ± 100 mV	

Purpose: Keep the interchangeability of video signal output

1. Terminate the composite signal of the video output terminal with 75 and input into the oscilloscope.
2. Select color bar 75% from the titles of the DVD test disc and play back.
3. Check that the composite signal output is the following value:

Y=1000mV±100mV

Cyan=650mV±100mV



12. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMP OUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK

INITIAL/LOGO		ABBREVIATIONS
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCK SELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPH1~3	CLOCK PULSE SOURCE DRIVE
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPV	GATE DRIVER CLOCK PULSE
	CPWR	CPU WRITE ENABLE
	CS	CHIP SELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED INPUT
	FEO	
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
	FSCK	FREQUENCY SUB CARRIER
		FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE
		INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	
	MDQ0~UP	MEMORY SERIAL COMMAND DATA
	MDQM	MEMORY DATA INPUT/OUTPUT
	MLD	MEMORY DATA I/O MASK
	MPEG	MEMORY SERIAL COMMAND LOAD
		MOVING PICTURE EXPERTS GROUP

INITIAL/LOGO		ABBREVIATIONS
O	ODC	OPTICAL DISC CONTROLLER
	OEH	SOURCE DRIVER OUTPUT ENABLE
	OEV 1, 2	GATE DRIVER OUTPUT ENABLE
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	
	PDVD	PLL CLOCK
	PEAK	DVD TRACKING PHASE DIFFERENCE
	PLLCLK	
	PLLOK	CAP. FOR PEAK HOLD
	PWMCTL	CHANNEL PLL CLOCK
	PWMDA	PLL LOCK
	PWMOA, B	PWM OUTPUT CONTROL
		PULSE WAVE MOTOR DRIVE A
		PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECT CLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUB CODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STH	SOURCE START PULSE
	STSEL	STREAM DATA POLARITY
	STV	SELECT
	STVALID	GATE DRIVER SCAN START
	SUBC	PULSE
	SBCK	STREAM DATA VALIDITY
	SUBQ	SUB CODE SERIAL
	SYSCLK	SUB CODE CLOCK
		SUB CODE Q DATA

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON

		SUB CODE & DATA		TRON	TRACKING ON
		SYSTEM CLOCK		TRSON	TRAVERSE SERVO ON

INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING
	VDD	BALANCE)
	VFB	DRAIN POWER SUPPLY VOLTAGE
	VREF	VIDEO FEED BACK VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLY VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

13. VOLTAGE CHART

Note:

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis

taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

- Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

13.1. MAIN P.C.B.

13.2. LCD I/F P.C.B.

14. BLOCK DIAGRAM

NOTE

Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

14.1. OVERALL BLOCK DIAGRAM

14.2. POWER SUPPLY BLOCK DIAGRAM

14.3. SERVO BLOCK DIAGRAM

14.4. VIDEO BLOCK DIAGRAM

14.5. AUDIO BLOCK DIAGRAM

14.6. LCD DRIVE BLOCK DIAGRAM

15. INTERCONNECTION SCHEMATIC DIAGRAM & SCHEMATIC DIAGRAM NOTES

15.1. INTERCONNECTION SCHEMATIC DIAGRAM

15.2. SCHEMATIC DIAGRAM NOTES

This schematic diagram may be modified at any time with the development of new technology.

Important safety notice:

Components identified by mark have special characteristics important for safety. Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture's specified parts shown in theparts list.

Important safety notice:
There are special components used in this equipment which are important for safety.
These parts are marked by ⚠ in the schematic diagrams. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

Caution!

IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care during repair.
Cover the parts boxes made of plastics with aluminum foil.
Ground the soldering iron.
Put a conductive mat on the work table.
Do not touch the legs of IC or LSI with the fingers directly.

CAUTION : FOR CONTINUED PROTECTION
AGAINST FIRE HAZARD, REPLACE ONLY WITH
SAME TYPE F1, F3, F4 8A 125V FUSE,
F5 1.6A 125V FUSE.
F6 4A 125V FUSE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

16. SCHEMATIC DIAGRAM

16.1. POWER SUPPLY/CHARGE BATTERY SECTION (MAIN P.C.B. (1/4)) SCHEMATIC DIAGRAM

16.2. OPTICAL PICK UP/SERVO/OPERATION SECTION (MAIN P.C.B. (2/4)) SCHEMATIC DIAGRAM

16.3. DV3 SECTION (MAIN P.C.B. (3/4)) SCHEMATIC DIAGRAM

16.4. AUDIO OUT/VIDEO OUT SECTION (MAIN P.C.B. (4/4)) SCHEMATIC DIAGRAM

16.5. LCD IF SCHEMATIC DIAGRAM

16.6. SIDE SW SCHEMATIC DIAGRAM

16.7. FRONT SW SCHEMATIC DIAGRAM

16.8. SD CARD SCHEMATIC DIAGRAM

16.9. IR & BATTERY JACK SCHEMATIC DIAGRAM

17. CIRCUIT BOARD ASSEMBLY

17.1. MAIN P.C.B. (1/2) (COMPONENT SIDE)

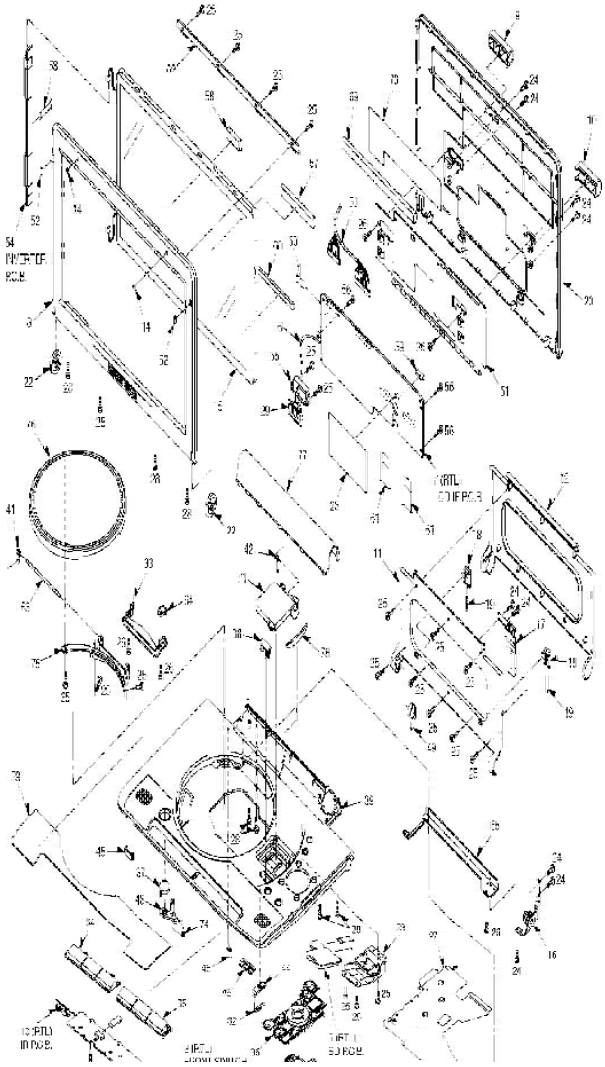
17.2. MAIN P.C.B. (2/2) (FOIL SIDE)

17.3. LDC IF P.C.B.

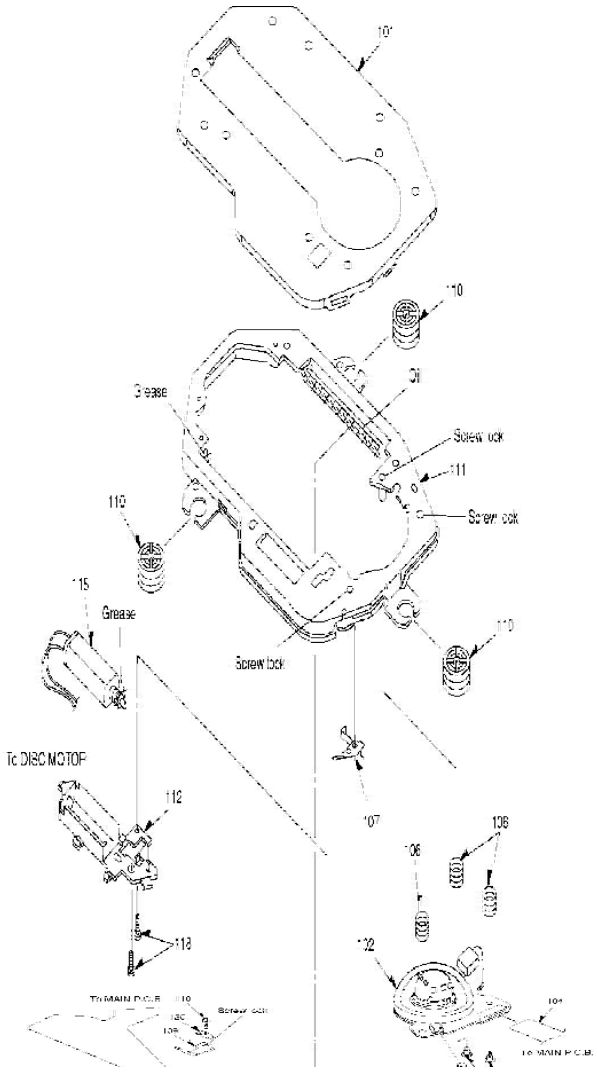
17.4. SIDE SW P.C.B. , FRONT SW P.C.B. , SD CARD P.C.B. , IR P.C.B. & BATTERY JACK P.C.B.

18. EXPLODED VIEWS

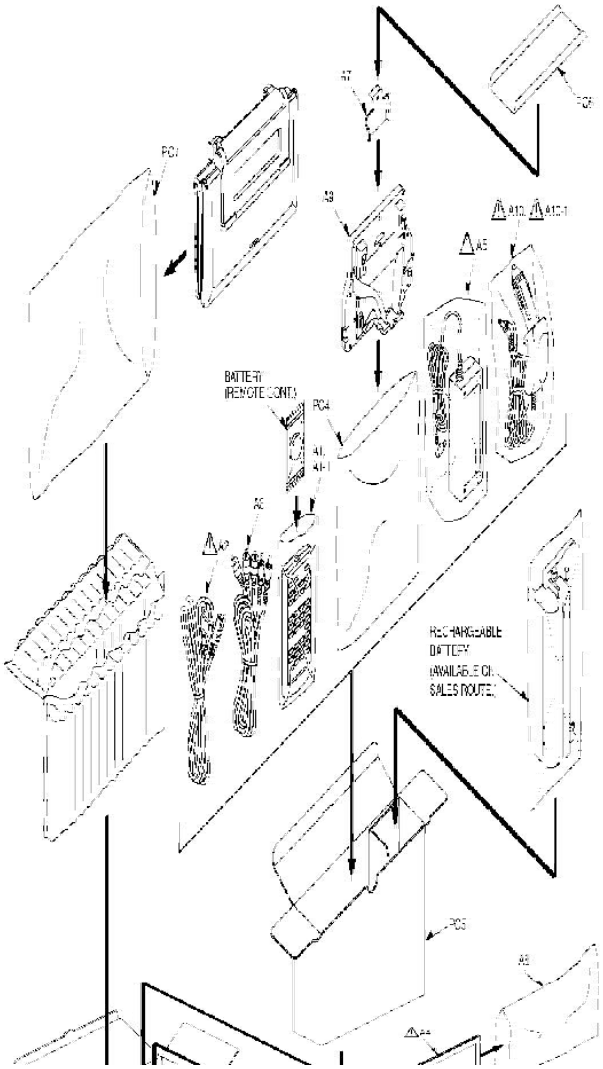
18.1. Casing Parts & Mechanism Section Exploded View



18.2. Mechanism Section Exploded View



18.3. Packing & Accessories Exploded View



19. REPLACEMENT PARTS LIST

Notes:

***Important safety notice:**

Components identified by mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the

parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F=Farads (F).**
***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).**
***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**
***"(IA)" mark in Remarks indicate languages of instruction manual. [(IA): English/Canadian French]**
***Parts indicated with (PAVC-CSG) in the Remarks column are supplied by PAVC (PAVC-CSG).**
All other parts are supplied by PAVCSG (ASPC).

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	REP4004DA-C	SIDE SWITCH P.C.B.	1	(RTL)
2	REP4004DB-C	FRONT SWITCH P.C.B.	1	(RTL)
3	RFKBLX110PP	MAIN P.C.B.	1	(RTL)
4	REP4003DB-C	BATTERY JACK P.C.B.	1	(RTL)
5	REP4004DC-C	SD P.C.B.	1	(RTL)
6	REE1374	SPEAKER WIRE	1	
7	REP4008D-1C	LCD IF P.C.B.	1	(RTL)
8	RGP1344-K	MONITOR CABINET ASS'Y	1	
9	RGQ0451-S	SHAFT HOLDER (L)	1	
10	RGQ0452-S	SHAFT HOLDER (R)	1	
11	RGQ0449-S	MONO ARM	1	
12	RGQ0450-S	MONO ARM COVER	1	
13	REP4004DD-C	IR P.C.B.	1	(RTL)
14	RGQ0453-K	CUSHION(A)	2	
15	L5EDD2L00012	LCD PANEL	1	
16	RKC0025	FRICTION HINGE A	1	
17	RKC0026	FRICTION HINGE B	1	
18	RML0715	MONO ARM LOCK LEVER	2	
19	RMB0835	LOCK LEVER SPRING	2	
20	RFKKPLX110AS	MONITOR COVER ASS'Y	1	
21	RMA2003	CABINET SUPPORT PLATE	1	
22	RMR1790-H	ROLLER	2	
23	RMZ0838	INSULATION SHEET	1	
24	XQN17+B4FN	SCREW	9	
25	XQN17+BG4FNJ	SCREW	28	
26	XQN17+BG6FN	SCREW	30	
27	RMY0366	HEAT SINK PLATE	1	
28	XTN17+6GFJK	SCREW	8	
29	EAS2D10B	SPEAKER	1	
30	REZ1765	FFC(5P)	1	
31	REZ1767	FFC(11P)	1	
32	RMB0863	SD LOCK SPRING	1	
33	RGQ0456-S	DISC HINGE COVER	1	
34	RGU2478-S	MAIN BUTTON (L)	1	
35	RGU2479-S	MAIN BUTTON (R)	1	
36	RGU2480-S	OPERATION BUTTON	1	
37	RGU2482-S	DISC OPEN BUTTON	1	
38	RGU2483-S	SD OPEN BUTTON	1	
39	RKM0559-S	MAIN CABINET	1	
41	RMB0861	DISC OPEN SPRING	1	
42	RMB0862	SD OPEN SPRING	1	
43	RML0716	DISC LOCK LEVER	1	
44	RML0717	SD LOCK LEVER	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
45	RMR1791-H	LCD OFF BUTTON	1	
46	RGL0691-W	LIGHTING PIECE	1	
47	RKS0426-S	BOTTOM CABINET	1	
48	RKW0812-W	REMOTE SENOR WINDOW	1	
49	RMQ1532	HINGE SHAFT HOLDER	1	
50	REEC0012	CABLE WITH CONNECTOR(46P)	1	
51	RMA2001	SUPPORT ANGLE	1	
52	RGQ0454-H	CUSHION(B)	2	
53	REZ1769	FFC(10P)	1	
54	N0DD2GC00001	INVERTER P.C.B.	1	
55	RMQ1533	SPEAKER HOLDER	1	
56	RHD17038-1	SCREW	3	
57	RMQ1535	GASKET	1	
58	RMQ1536	GASKET	1	
59	RMQ1537	GASKET	1	
60	RMQ1538	GASKET	1	
61	REZ1768	FFC(30P)	2	
62	RMA2000	FRONT ANGLE	1	
63	RMS0883	DISC LID SHAFT	1	
64	RMR1792-H	STOPPER PIECE	1	
65	RMA2002	HINGE ANGLE	1	
66	EAB220AL	SPEAKER (L)	1	
67	EAB220AR	SPEAKER (R)	1	
68	REZ1764	FFC (12P)	1	
69	RMQ1560	GASKET	1	
70	RMV0314	SHEET	1	
71	RKF0764-S	SD LID	1	
72	RGU2481-S	ENTER BUTTON	1	
73	RMQ1534	SD P.C.B. HOLDER	1	
74	RMB0864	DISC LOCK SPRING	1	
75	RGQ0458-H	DISC LID HINGE	1	
76	RKF0763-S	DISC LID	1	
77	RGQ0457-S	HINGE COVER	1	
78	RGL0690-W	SD LIGHTING PLATE	1	
79	RGK2001-S	SP PIECE	1	
101	RMK0503-C	COVER	1	
102	BKL2E08KA	DISC MOTOR	1	
103	RDG0514-C	INTERFACE GEAR	1	
104	REZ1740	SPINDLE FFC	1	
105	RHD17037-1	SCREW	3	
106	RMB0681-J	TILT SPRING	3	
107	RMC0448-C	SPRING	1	
108	RMC0592-C	SPRING	1	
109	RMC0455-3C	SPRING	1	
110	RMG0562-K	DAMPER	3	
111	RMK0502-5C	TRAVERSE BASE	1	
112	RMR1393-WC	MOTOR COVER	1	
113	RMS0751-J	INTERFACE GEAR SHAFT	1	
114	RXJ0031	DRIVE SHAFT ASS'Y	1	
115	RXQ0786-1	TRAVERSE MOTOR ASS'Y	1	
116	RAF3134A-2	OPTICAL PICK-UP	1	
118	XQN17+BG4FN	SCREW	2	
119	RHD17043-1	SCREW	1	
120	RMC0593-C	SUPPORT PLATE	1	
A1	N2QAHC000021	REMOTE CONTROL ASS'Y	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A1-1	ETR028272008	BATTERY COVER	1	
A2	K2CB2CB00018	AC CORD	1	
A3	K2KA6CB00003	AV CORD	1	
A4	RQT8231-Y	OPERARING INSTRUCTIONS	1	(IA)
A5	RFEA214W-M	AC ADAPTOR	1	
A7	RGQ0459-K	MONITOR HOLDER	1	
A8	RPF0046-1	POLYETHYLENE BAG(F.B.)	1	
A9	RXQ1405B	BRACKET UNIT	1	
A10	RFEC202M-M	CAR DC CABLE	1	
A10-1	K5D252APA008	FUSE	1	
PC1	RPK2462-1	PACKING CASE	1	
PC4	RPFC0031-B	POLYETHYLENE BAG	1	
PC5	RPQF0299	ACCESSORY BOX	1	
PC6	RPQ2146-1	PAD A	1	
PC7	RPFC0072	POLYETHYLENE BAG	1	
PC8	RPQ2215	PAD B	1	
C1001	ECJ1VB1C105K	16V 1U	1	
C1002	ECJ1VB1C105K	16V 1U	1	
C1003	ECJ0EB1E102K	25V 1000P	1	
C1004	ECJ0EB1E102K	25V 1000P	1	
C1005	ECJ1VB1C105K	16V 1U	1	
C1006	ECJ0EB1E102K	25V 1000P	1	
C1007	ECJ0EC1H101J	50V 100P	1	
C1012	ECJ0EC1H151J	50V 150P	1	
C1013	ECJ0EB1E332K	25V 3300P	1	
C1014	F1H1A224A025	10V 0.22U	1	
C1015	ECJ1VB0J474K	6.3V 0.47U	1	
C1016	ECJ1VB1C105K	16V 1U	1	
C1017	F3F1A106A047	10V 10U	1	
C1018	ECJ0EC1H151J	50V 150P	1	
C1019	F3F1A106A047	10V 10U	1	
C1021	ECJ0EC1H151J	50V 150P	1	
C1022	ECJ0EB1E271K	25V 270P	1	
C1023	ECJ1VB0J474K	6.3V 0.47U	1	
C1025	ECJ0EB1C682K	16V 6800P	1	
C1026	ECJ0EB1E182K	25V 1800P	1	
C1027	ECJ0EB1E332K	25V 3300P	1	
C1031	ECJ1VB1C105K	16V 1U	1	
C1032	ECJ1VB1C105K	16V 1U	1	
C1038	ECJ1VB1C105K	16V 1U	1	
C1044	ECJ1VB1C105K	16V 1U	1	
C1047	F1J0J1060010	6.3V 10U	1	
C1051	F3G1A476A037	10V 47U	1	
C1052	F3G1A476A037	10V 47U	1	
C1053	F3G1A476A037	10V 47U	1	
C1054	F3G1A476A037	10V 47U	1	
C1063	F1K1C106A062	16V 10U	1	
C1066	ECJ0EB1C103K	16V 0.01U	1	
C1067	ECJ0EF1C104Z	16V 0.1U	1	
C1068	ECJ0EF1C104Z	16V 0.1U	1	
C1069	ECJ1VB1C105K	16V 1U	1	
C1070	ECJ0EB1E102K	25V 1000P	1	
C1071	ECJ0EC1H101J	50V 100P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1072	ECJ0EB1E182K	25V 1800P	1	
C1073	F1H1A224A025	10V 0.22U	1	
C1074	ECJ1VB1C105K	16V 1U	1	
C1101	F3G1V475A022	35V 4.7U	1	
C1102	F3G1V475A022	35V 4.7U	1	
C1103	F3G1E685A019	25V 6.8U	1	
C1104	F3G1E685A019	25V 6.8U	1	
C1108	ECJ1VB0J105K	6.3V 1U	1	
C1109	F1J0J1060010	6.3V 10U	1	
C1205	ECJ1VB1A105K	10V 1U	1	
C1401	ECJ0EB1C103K	16V 0.01U	1	
C1402	ECJ0EC1H101J	50V 100P	1	
C1403	ECJ3YB1E105K	25V 1U	1	
C1404	F2H1E680A003	25V 68U	1	
C1405	ECJ0EF1C104Z	16V 0.1U	1	
C1406	ECJ0EC1H101J	50V 100P	1	
C1407	F2G1C101A038	16V 100U	1	
C1409	F3F0J226A057	6.3V 22U	1	
C1410	ECJ0EC1H101J	50V 100P	1	
C1411	ECJ3YB1E105K	25V 1U	1	
C1412	F3F1C106A042	16V 10U	1	
C1413	ECJ3YB1E475K	25V 4.7U	1	
C1414	ECJ0EB1E103K	25V 0.01U	1	
C1415	ECJ1VB1A105K	10V 1U	1	
C1416	ECJ0EC1H680J	50V 68P	1	
C1417	ECJ0EB1A104K	10V 0.1U	1	
C1421	ECJ0EF1C104Z	16V 0.1U	1	
C1422	ECJ0EF1C104Z	16V 0.1U	1	
C1423	F2H1E680A003	25V 68U	1	
C1424	ECJ0EB1A104K	10V 0.1U	1	
C1425	ECJ0EC1H101J	50V 100P	1	
C1426	ECJ0EC1H101J	50V 100P	1	
C1427	F2G1C101A038	16V 100U	1	
C1428	ECJ0EC1H680J	50V 68P	1	
C1601	ECJ0EC1H101J	50V 100P	1	
C1606	F1K1C106A062	16V 10U	1	
C1623	F1J0J1060010	6.3V 10U	1	
C1624	F1J1A335A005	10V 3.3U	1	
C1625	ECJ0EF1C104Z	16V 0.1U	1	
C1651	F1J1A335A005	10V 3.3U	1	
C1652	F2G1C101A038	16V 100U	1	
C2501	ECJ0EC1H101J	50V 100P	1	
C2601	F3G1A476A037	10V 47U	1	
C2602	ECJ0EF1C104Z	16V 0.1U	1	
C2603	F3G1A476A037	10V 47U	1	
C2604	ECJ0EF1C104Z	16V 0.1U	1	
C2605	F3G1A476A037	10V 47U	1	
C2606	ECJ0EF1C104Z	16V 0.1U	1	
C2607	ECJ0EF1C104Z	16V 0.1U	1	
C2651	F3G1A476A037	10V 47U	1	
C2652	F3F0J4760004	6.3V 47U	1	
C2653	ECJ0EF1C104Z	16V 0.1U	1	
C2654	ECJ0EF1C104Z	16V 0.1U	1	
C2655	ECJ0EF1C104Z	16V 0.1U	1	
C2656	ECJ0EF1C104Z	16V 0.1U	1	
C2657	ECJ0EB1A104K	10V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C2658	ECJ0EB1C103K	16V 0.01U	1	
C2659	ECJ0EB1C103K	16V 0.01U	1	
C2660	ECJ0EB1C103K	16V 0.01U	1	
C2661	ECJ0EF1C104Z	16V 0.1U	1	
C2662	ECJ0EB1C103K	16V 0.01U	1	
C2663	ECJ0EB1C103K	16V 0.01U	1	
C2664	ECJ0EB1C103K	16V 0.01U	1	
C3001	ECJ0EF1C104Z	16V 0.1U	1	
C3002	ECJ0EF1C104Z	16V 0.1U	1	
C3004	ECJ0EF1C104Z	16V 0.1U	1	
C3005	ECJ0EF1C104Z	16V 0.1U	1	
C3006	ECJ0EF1C104Z	16V 0.1U	1	
C3007	ECJ0EF1C104Z	16V 0.1U	1	
C3008	ECJ0EF1C104Z	16V 0.1U	1	
C3009	ECJ0EF1C104Z	16V 0.1U	1	
C3010	ECJ0EF1C104Z	16V 0.1U	1	
C3011	ECJ0EF1C104Z	16V 0.1U	1	
C3012	ECJ0EF1C104Z	16V 0.1U	1	
C3015	ECJ0EF1C104Z	16V 0.1U	1	
C3016	ECJ0EF1C104Z	16V 0.1U	1	
C3018	ECJ1VB0J105K	6.3V 1U	1	
C3019	ECJ0EF1C104Z	16V 0.1U	1	
C3020	ECJ0EF1C104Z	16V 0.1U	1	
C3021	ECJ0EF1C104Z	16V 0.1U	1	
C3022	ECJ0EB1C153K	16V 0.015U	1	
C3024	ECJ0EF1C104Z	16V 0.1U	1	
C3025	ECJ0EF1C104Z	16V 0.1U	1	
C3026	ECJ0EF1C104Z	16V 0.1U	1	
C3027	ECJ0EF1C104Z	16V 0.1U	1	
C3028	ECJ0EB1A333K	10V 0.033U	1	
C3029	ECJ0EC1H221J	50V 220P	1	
C3030	ECJ0EF1C104Z	16V 0.1U	1	
C3031	ECJ0EF1C104Z	16V 0.1U	1	
C3032	ECJ0EF1C104Z	16V 0.1U	1	
C3033	ECJ0EB1C562K	16V 5600P	1	
C3034	ECJ0EB1E222K	25V 2200P	1	
C3035	ECJ0EB1C183K	16V 0.018U	1	
C3036	ECJ0EF1C104Z	16V 0.1U	1	
C3037	ECJ1VB0J105K	6.3V 1U	1	
C3038	ECJ0EF1C104Z	16V 0.1U	1	
C3039	ECJ1VB0J105K	6.3V 1U	1	
C3040	ECJ0EB1A104K	10V 0.1U	1	
C3041	ECJ0EB1A104K	10V 0.1U	1	
C3042	ECJ0EF1C104Z	16V 0.1U	1	
C3043	ECJ0EB1A104K	10V 0.1U	1	
C3044	ECJ0EB1A104K	10V 0.1U	1	
C3045	ECJ0EF1C104Z	16V 0.1U	1	
C3046	ECJ1VB0J105K	6.3V 1U	1	
C3047	ECJ0EB1A104K	10V 0.1U	1	
C3048	ECJ0EB1A104K	10V 0.1U	1	
C3049	ECJ0EB1A104K	10V 0.1U	1	
C3050	ECJ0EF1C104Z	16V 0.1U	1	
C3051	ECJ0EB1A104K	10V 0.1U	1	
C3052	ECJ1VB0J105K	6.3V 1U	1	
C3053	ECJ1VB0J105K	6.3V 1U	1	
C3054	ECJ1VB0J105K	6.3V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3055	ECJ1VB0J105K	6.3V 1U	1	
C3056	ECJ1VB0J105K	6.3V 1U	1	
C3057	ECJ0EB1A104K	10V 0.1U	1	
C3058	ECJ0EF1C104Z	16V 0.1U	1	
C3059	ECJ0EF1C104Z	16V 0.1U	1	
C3060	ECJ1VB0J105K	6.3V 1U	1	
C3061	F3F0J476A047	6.3V 47U	1	
C3062	ECJ1VB0J105K	6.3V 1U	1	
C3063	F3F0J476A047	6.3V 47U	1	
C3064	F3F0J476A047	6.3V 47U	1	
C3065	ERJ3GEY0R00V	1/10W 0	1	
C3066	F3F0J476A047	6.3V 47U	1	
C3067	ECJ1VB0J105K	6.3V 1U	1	
C3069	ECJ1VB0J105K	6.3V 1U	1	
C3070	ECJ1VB0J105K	6.3V 1U	1	
C3071	ECJ0EC1H120J	50V 12P	1	
C3072	ECJ0EC1H270J	50V 27P	1	
C3073	F3F0J476A047	6.3V 47U	1	
C3074	F3F0J476A047	6.3V 47U	1	
C3075	ECJ0EB1E102K	25V 1000P	1	
C3076	ECJ0EB1E102K	25V 1000P	1	
C3077	ECJ0EB1E821K	25V 820P	1	
C3078	ECJ0EB1E102K	25V 1000P	1	
C3079	ERJ3GEY0R00V	1/10W 0	1	
C3080	ERJ3GEY0R00V	1/10W 0	1	
C3081	ECJ0EB1E102K	25V 1000P	1	
C3082	ECJ0EB1E102K	25V 1000P	1	
C3090	ERJ3GEY0R00V	1/10W 0	1	
C3091	ECJ0EB1E102K	25V 1000P	1	
C3092	ECJ0EB1E102K	25V 1000P	1	
C3093	ECJ0EB1E102K	25V 1000P	1	
C3095	ERJ3GEY0R00V	1/10W 0	1	
C3201	ECJ0EB1C103K	16V 0.01U	1	
C3202	ECJ1VB0J105K	6.3V 1U	1	
C3203	F3F0J4760004	6.3V 47U	1	
C3204	ECJ0EB1A104K	10V 0.1U	1	
C3205	ECJ0EF1C104Z	16V 0.1U	1	
C3206	ECJ0EF1C104Z	16V 0.1U	1	
C3207	F3F0J226A057	6.3V 22U	1	
C3212	F2G0G331A012	4V 330U	1	
C3213	F3F0J226A057	6.3V 22U	1	
C3216	ECJ1VB0J105K	6.3V 1U	1	
C3217	ECJ0EF1C104Z	16V 0.1U	1	
C3218	ECJ1VB0J105K	6.3V 1U	1	
C3219	ECJ1VB0J105K	6.3V 1U	1	
C3220	ECJ1VB0J105K	6.3V 1U	1	
C3221	ECJ0EB1A104K	10V 0.1U	1	
C3223	ECJ0EC1H101J	50V 100P	1	
C3224	ECJ0EB1A104K	10V 0.1U	1	
C3225	ECJ0EC1H101J	50V 100P	1	
C3226	ECJ0EB1A104K	10V 0.1U	1	
C3227	ECJ1VB0J105K	6.3V 1U	1	
C3228	ECJ1VB0J105K	6.3V 1U	1	
C3229	ECJ0EF1C104Z	16V 0.1U	1	
C3251	F3F1A226A047	10V 22U	1	
C4001	F1J0J1060010	6.3V 10U	1	
C4002	F1J0J1060010	6.3V 10U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4003	ECJ0EC1H390J	50V 39P	1	
C4004	ECJ0EC1H390J	50V 39P	1	
C4005	F1J0J1060010	6.3V 10U	1	
C4006	F1J0J1060010	6.3V 10U	1	
C4007	ECJ0EB1E102K	25V 1000P	1	
C4008	ECJ0EB1E102K	25V 1000P	1	
C4015	ECJ1VB0J105K	6.3V 1U	1	
C4016	ECJ1VB0J105K	6.3V 1U	1	
C4017	ECJ0EB1A104K	10V 0.1U	1	
C4018	ECJ0EB1A104K	10V 0.1U	1	
C4019	F3F0J476A047	6.3V 47U	1	
C4020	F3F0J476A047	6.3V 47U	1	
C4021	ECJ0EF1C104Z	16V 0.1U	1	
C4022	ECJ0EF1C104Z	16V 0.1U	1	
C4023	F3F1A226A047	10V 22U	1	
C4024	F1J0J1060010	6.3V 10U	1	
C4026	F3F0J476A047	6.3V 47U	1	
C4027	F3F0J476A047	6.3V 47U	1	
C4028	ECJ3YB1E105K	25V 1U	1	
C4029	ECJ0EF1C104Z	16V 0.1U	1	
C4030	F3F1A226A047	10V 22U	1	
C4031	ECJ0EF1C104Z	16V 0.1U	1	
C4032	F3F0J4760004	6.3V 47U	1	
C4033	ECJ0EF1C104Z	16V 0.1U	1	
C4034	F1K1C106A062	16V 10U	1	
C4035	F3F0J476A047	6.3V 47U	1	
C4036	F1J0J1060010	6.3V 10U	1	
C4040	F3F0J476A047	6.3V 47U	1	
C4041	ECJ0EB1A104K	10V 0.1U	1	
C4042	ECJ0EF1C104Z	16V 0.1U	1	
C4044	F3F0J476A047	6.3V 47U	1	
C4045	ECJ0EB1A104K	10V 0.1U	1	
C4046	ECJ1VB0J105K	6.3V 1U	1	
C4047	ECJ0EF1C104Z	16V 0.1U	1	
C4048	ECJ0EF1C104Z	16V 0.1U	1	
C4051	ECJ1VB0J105K	6.3V 1U	1	
C4052	ECJ1VB0J105K	6.3V 1U	1	
C4060	ERJ3GEY0R00V	1/10W 0	1	
C4061	ERJ3GEY0R00V	1/10W 0	1	
C4062	ERJ3GEY0R00V	1/10W 0	1	
C4063	ERJ3GEY0R00V	1/10W 0	1	
C4064	ECJ0EB1E102K	25V 1000P	1	
C4065	ERJ3GEY0R00V	1/10W 0	1	
C4066	ECJ0EB1E102K	25V 1000P	1	
C4067	ECJ0EB1E102K	25V 1000P	1	
C4101	ECJ0EB1C223K	16V 0.022U	1	
C4102	ECJ0EB1C223K	16V 0.022U	1	
C4103	ECJ0EB1E182K	25V 1800P	1	
C4104	ECJ1VB0J105K	6.3V 1U	1	
C4105	F3F0J476A047	6.3V 47U	1	
C4106	ECJ0EB1C103K	16V 0.01U	1	
C4701	ECJ1VB0J105K	6.3V 1U	1	
C4702	ECJ1VB0J105K	6.3V 1U	1	
C4703	F1J0J1060010	6.3V 10U	1	
C4704	ECJ1VB0J105K	6.3V 1U	1	
C4705	ECJ0EB1A104K	10V 0.1U	1	
C4706	F1J0J4750002	6.3V 4.7U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C4707	F1J0J1060010	6.3V 10U	1	
C4708	F1H1A224A025	10V 0.22U	1	
C4709	F1J0J4750002	6.3V 4.7U	1	
C4710	F1H1A224A025	10V 0.22U	1	
C4712	ECJ0EB1A104K	10V 0.1U	1	
C4713	ECJ0EB1A104K	10V 0.1U	1	
C4714	F1H1A224A025	10V 0.22U	1	
C4715	F1H1A224A025	10V 0.22U	1	
C4716	F3F1A106A047	10V 10U	1	
C4725	ECJ0EB1C103K	16V 0.01U	1	
C4726	ECJ0EB1C103K	16V 0.01U	1	
C4727	ECJ0EB1C103K	16V 0.01U	1	
C4728	ECJ0EB1C103K	16V 0.01U	1	
C4732	ECJ0EB1A104K	10V 0.1U	1	
C4737	F2G0G331A012	4V 330U	1	
C4738	F2G0G331A012	4V 330U	1	
C5201	ECJ0EB1E102K	25V 1000P	1	
C5202	ECJ0EF1C104Z	16V 0.1U	1	
C5203	ECJ0EF1C104Z	16V 0.1U	1	
C5204	F1J0J1060010	6.3V 10U	1	
C5205	F1J0J1060010	6.3V 10U	1	
C5206	ECJ0EF1C104Z	16V 0.1U	1	
C5209	F1J0J1060010	6.3V 10U	1	
C5210	F1J0J1060010	6.3V 10U	1	
C5211	F3F0J4760004	6.3V 47U	1	
C5215	F3F0J4760004	6.3V 47U	1	
C5217	ECJ0EC1H101J	50V 100P	1	
C5218	ECJ0EF1C104Z	16V 0.1U	1	
C5219	ECJ0EB1E102K	25V 1000P	1	
C5220	ECJ0EB1E102K	25V 1000P	1	
C5221	ECJ0EC1H101J	50V 100P	1	
C5222	F1J0J1060010	6.3V 10U	1	
C5224	ECJ0EC1H470J	50V 47P	1	
C5232	ECJ0EF1C104Z	16V 0.1U	1	
C6001	ECJ0EB1C103K	16V 0.01U	1	
C6002	ECJ0EB1A104K	10V 0.1U	1	
C6003	ECJ0EB1A104K	10V 0.1U	1	
C6004	ECJ1VB0J105K	6.3V 1U	1	
C6005	ECJ0EB1A104K	10V 0.1U	1	
C6006	ECJ0EB1A104K	10V 0.1U	1	
C6007	ECJ0EF1C104Z	16V 0.1U	1	
C6008	ECJ0EF1C104Z	16V 0.1U	1	
C6009	ECJ0EB1A104K	10V 0.1U	1	
C6010	ECJ0EF1C104Z	16V 0.1U	1	
C6011	ECJ1VB0J105K	6.3V 1U	1	
C6012	ECJ0EF1C104Z	16V 0.1U	1	
C6211	ECJ0EC1H470J	50V 47P	1	
C6214	ECJ0EC1H470J	50V 47P	1	
C6800	ECJ0EB1A104K	10V 0.1U	1	
C6801	F3F0J476A047	6.3V 47U	1	
C6901	ECJ0EB1A104K	10V 0.1U	1	
C6902	ECJ0EB1A104K	10V 0.1U	1	
C8001	F3F0J476A047	6.3V 47U	1	
C8002	F3F0J476A047	6.3V 47U	1	
C8003	F3F0J4760004	6.3V 47U	1	
C8004	F3F0J4760004	6.3V 47U	1	
C8005	F3F0J476A047	6.3V 47U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8006	F3F0J476A047	6.3V 47U	1	
C8007	ECJ0EB1A104K	10V 0.1U	1	
C8008	F3F0J476A047	6.3V 47U	1	
C8009	ECJ0EB1A104K	10V 0.1U	1	
C8010	ECJ0EB1E331K	25V 330P	1	
C8011	ECJ0EB1E331K	25V 330P	1	
C8012	ECJ0EB1A104K	10V 0.1U	1	
C8013	ECJ0EB1A104K	10V 0.1U	1	
C8014	ECJ0EB1A104K	10V 0.1U	1	
C8015	ECJ0EB1E331K	25V 330P	1	
C8016	ECJ0EB1E331K	25V 330P	1	
C8017	ECJ0EB1A104K	10V 0.1U	1	
C8018	ECJ0EB1A104K	10V 0.1U	1	
C8019	F3F0J476A047	6.3V 47U	1	
C8020	ECJ1VB0J105K	6.3V 1U	1	
C8021	ECJ0EB1A104K	10V 0.1U	1	
C8022	ECJ0EB1A104K	10V 0.1U	1	
C8023	ECJ2YB1A684K	16V 6.8U	1	
C8024	ECJ2YB1A684K	16V 6.8U	1	
C8025	ECJ0EB1A104K	10V 0.1U	1	
C8026	ECJ0EB1A104K	10V 0.1U	1	
C8027	ECJ0EB1A104K	10V 0.1U	1	
C8028	ECJ0EB1A104K	10V 0.1U	1	
C8029	ECJ0EB1E331K	25V 330P	1	
C8030	ECJ0EB1C103K	16V 0.01U	1	
C8031	ECJ0EB1A104K	10V 0.1U	1	
C8032	ECJ0EB1E331K	25V 330P	1	
C8033	ECJ0EB1A104K	10V 0.1U	1	
C8034	ECJ0EB1E331K	25V 330P	1	
C8035	ECJ0EB1A104K	10V 0.1U	1	
C8036	ECJ0EB1A104K	10V 0.1U	1	
C8037	ECJ0EB1E331K	25V 330P	1	
C8038	ECJ0EB1E331K	25V 330P	1	
C8039	ECJ0EB1A104K	10V 0.1U	1	
C8040	F3F0J476A047	6.3V 47U	1	
C8041	F3F0J476A047	6.3V 47U	1	
C8042	F3F0J226A057	6.3V 22U	1	
C8043	F3F0J476A047	6.3V 47U	1	
C8044	ECJ0EB1A104K	10V 0.1U	1	
C8046	ECJ0EB1A104K	10V 0.1U	1	
C8047	ECJ0EB1E331K	25V 330P	1	
C8048	ECJ0EB1A104K	10V 0.1U	1	
C8050	ECJ0EB1A104K	10V 0.1U	1	
C8051	ECJ0EB1E331K	25V 330P	1	
C8052	ECJ0EB1A104K	10V 0.1U	1	
C8053	ECJ0EB1E331K	25V 330P	1	
C8054	ECJ0EB1E331K	25V 330P	1	
C8055	ECJ0EB1A104K	10V 0.1U	1	
C8056	ECJ0EC1H390J	50V 39P	1	
C8057	ECJ0EB1E331K	25V 330P	1	
C8058	ECJ0EB1A104K	10V 0.1U	1	
C8059	ECJ0EB1E331K	25V 330P	1	
C8060	ECJ0EB1A104K	10V 0.1U	1	
C8061	ECJ0EB1E102K	25V 1000P	1	
C8062	ECJ0EB1E331K	25V 330P	1	
C8063	ECJ0EC1H330J	50V 33P	1	
C8064	ECJ1VB0J105K	6.3V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8065	ECJ1VB0J105K	6.3V 1U	1	
C8066	ECJ0EB1C103K	16V 0.01U	1	
C8067	ECJ0EB1C103K	16V 0.01U	1	
C8068	ECJ0EB1C103K	16V 0.01U	1	
C8069	ECJ0EC1H101J	50V 100P	1	
C8070	ECJ0EB1A104K	10V 0.1U	1	
C8071	ECJ0EB1A104K	10V 0.1U	1	
C8073	F1J1C335A121	16V 3.3U	1	
C8074	ECJ1VB0J105K	6.3V 1U	1	
C8075	F3F0J476A047	6.3V 47U	1	
C8076	F3F0J476A047	6.3V 47U	1	
C8102	ECJ0EB1C103K	16V 0.01U	1	
C8103	ECJ0EB1A104K	10V 0.1U	1	
C8105	ECJ0EB1A104K	10V 0.1U	1	
C8202	ECJ0EB1E102K	25V 1000P	1	
C8203	ECJ0EB1A104K	10V 0.1U	1	
C8204	ECJ1VB0J105K	6.3V 1U	1	
C8205	ECJ0EB1A104K	10V 0.1U	1	
C8207	ECJ0EB1A104K	10V 0.1U	1	
C8409	ECJ0EB1A104K	10V 0.1U	1	
C8410	ECJ2FB0J225K	6.3V 2.2U	1	
C8411	ECJ0EB1C103K	16V 0.01U	1	
C8501	F3F1A226A047	10V 22U	1	
C8502	ECJ0EB1A104K	10V 0.1U	1	
C8503	ECJ1VB1C104K	16V 0.1U	1	
C8504	ECJ0EB1A104K	10V 0.1U	1	
C8505	ECJ0EB1A104K	10V 0.1U	1	
C8508	ECJ1VB1C104K	16V 0.1U	1	
C8509	ECJ3FF1E225Z	25V 2.2U	1	
C8510	ECJ3FF1E225Z	25V 2.2U	1	
C8511	ECJ3FF1E225Z	25V 2.2U	1	
C8512	ECJ0EB1A104K	10V 0.1U	1	
C8601	ECJ0EB1A104K	10V 0.1U	1	
C8602	ECJ0EB1A104K	10V 0.1U	1	
C8603	ECJ0EB1E102K	25V 1000P	1	
C8604	ECJ1VB0J105K	6.3V 1U	1	
C8605	ECJ1VB1H102K	50V 1000P	1	
C8606	F3G1D226A021	20V 22U	1	
C8614	F3F0J4760004	6.3V 47U	1	
C8615	ECJ1VB0J105K	6.3V 1U	1	
C8616	ECJ0EB1C103K	16V 0.01U	1	
C8617	F3F0J476A047	6.3V 47U	1	
C8618	ECJ0EB1C103K	16V 0.01U	1	
C8619	ECJ0EB1A104K	10V 0.1U	1	
C8620	ECJ0EB1C103K	16V 0.01U	1	
C8623	ECJ0EB1E222K	25V 2200P	1	
C8625	ECJ1VB0J105K	6.3V 1U	1	
C8631	ECJ2YB1C105K	16V 1U	1	
C8633	ECJ0EC1H101J	50V 100P	1	
C8636	ECJ0EB1A104K	10V 0.1U	1	
C8637	ECJ0EB1E331K	25V 330P	1	
C8638	ECJ0EC1H101J	50V 100P	1	
C8701	ECJ1VB0J105K	6.3V 1U	1	
C8702	F3F0J476A047	6.3V 47U	1	
C8703	ECJ0EB1C103K	16V 0.01U	1	
C8704	F3F0J476A047	6.3V 47U	1	
C8705	ECJ0EB1C103K	16V 0.01U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C8706	ECJ1VB0J105K	6.3V 1U	1	
C8801	ECJ0EB1A104K	10V 0.1U	1	
C8802	ECJ0EB1C103K	16V 0.01U	1	
C8803	ECJ0EB1C103K	16V 0.01U	1	
C8804	ECJ0EB1C103K	16V 0.01U	1	
C8805	ECJ0EB1C103K	16V 0.01U	1	
C8806	F3F0J476A047	6.3V 47U	1	
C8901	ECJ0EB1C103K	16V 0.01U	1	
C8902	ECJ2YB1A684K	10V 6.8U	1	
C8903	ECJ0EB1A104K	10V 0.1U	1	
C8904	ERJ2GE0R00X	1/16W 0	1	
C8906	ECJ1VB1H102K	50V 1000P	1	
C8908	ECJ1VB0J105K	6.3V 1U	1	
C8911	ECJ0EB1A104K	10V 0.1U	1	
C8912	ECJ0EB1A104K	10V 0.1U	1	
C8913	ECJ1VC1H100D	50V 10P	1	
C8914	ECJ0EB1C562K	16V 5600P	1	
C8915	ECJ0EB1E472K	25V 4700P	1	
C8917	ECJ0EC1H330J	50V 33P	1	
C8918	ECJ0EB1C822K	16V 8200P	1	
C8919	ECJ0EB1A104K	10V 0.1U	1	
C8920	ECJ0EB1C223K	16V 0.022U	1	
C8921	ECJ1VC1H100D	50V 10P	1	
C8922	ECJ1VB0J105K	6.3V 1U	1	
C8923	F1H1H470A799	50V 47P	1	
C8924	ECJ0EB1E102K	25V 1000P	1	
C8925	ECJ0EB1E102K	25V 1000P	1	
C8926	ECJ0EB1E102K	25V 1000P	1	
C8927	ECJ0EB1E102K	25V 1000P	1	
C8939	ECJ1VB0J105K	6.3V 1U	1	
D1011	B0JCPD000032	DIODE	1	
D1012	B0JCPD000032	DIODE	1	
D1013	B0JCPD000032	DIODE	1	
D1016	MAZ81000ML	DIODE	1	
D1017	MAZ80390LL	DIODE	1	
D1021	B0JCPD000032	DIODE	1	
D1101	MA2SD2400L	DIODE	1	
D1102	MA2J11100L	DIODE	1	
D1103	MA2J11100L	DIODE	1	
D1401	B0JCPD000032	DIODE	1	
D1402	B0JCPE000004	DIODE	1	
D1404	B0JCPD000032	DIODE	1	
D1405	B0JCPD000032	DIODE	1	
D1406	B0JCMD000022	DIODE	1	
D1407	B0JCPD000032	DIODE	1	
D1408	B0JCPE000004	DIODE	1	
D1409	B0JCPD000032	DIODE	1	
D1410	B0JCPD000032	DIODE	1	
D1411	MA2J11100L	DIODE	1	
D1412	MAZ80510ML	DIODE	1	
D1413	MA3J142E0L	DIODE	1	
D1414	MA3J142E0L	DIODE	1	
D1415	MAZ80510ML	DIODE	1	
D1416	MA2J11100L	DIODE	1	
D1417	MA2J11100L	DIODE	1	
D1601	B0JCPD000032	DIODE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D1621	B0JCPE000004	DIODE	1	
D3001	MA2J11100L	DIODE	1	
D3002	MA2J11100L	DIODE	1	
D3201	MA2J11100L	DIODE	1	
D3202	MA2J11100L	DIODE	1	
D4001	MA3S132D0L	DIODE	1	
D4002	MA2SD2400L	DIODE	1	
D4003	MA3S132E0L	DIODE	1	
D4004	MA3S132D0L	DIODE	1	
D4006	MA3S132E0L	DIODE	1	
D4007	MA3S132D0L	DIODE	1	
D4008	MA2J11100L	DIODE	1	
D5221	MA2J11100L	DIODE	1	
D6004	MA2J11100L	DIODE	1	
D6801	LNJ826W83RA	DIODE	1	
D6802	LNJ414K82RA1	DIODE	1	
D6803	B3ADB0000069	DIODE	1	
D6831	B3AEB0000076	DIODE	1	
D8001	MA2SD2400L	DIODE	1	
D8002	MA3X704A0L	DIODE	1	
D8003	MA3X704A0L	DIODE	1	
D8201	MA2SD2400L	DIODE	1	
D8501	MAZ81500ML	DIODE	1	
D8502	MA2SD2400L	DIODE	1	
D8503	MA3J745E0L	DIODE	1	
D8504	MA2J11100L	DIODE	1	
D8505	MA2J11100L	DIODE	1	
D8506	MA2J11100L	DIODE	1	
FL8001	ERJ6GEY0R00V	1/10W 0	1	
FL8002	F1J1A105A013	FILTER	1	
FL8601	F1J1A105A013	FILTER	1	
FL8602	F1J1A105A013	FILTER	1	
FL8901	F1J1A105A013	FILTER	1	
FP2501	K1MY18BA0075	CONNECTOR(18P)	1	
FP3002	K1MY11BA0046	CONNRCTOR(11P)	1	
FP5201	K1MN30BA0079	CONNECTOR(30P)	1	
FP6201	K1MY05BA0041	CONNECTOR(5P)	1	
FP6210	K1MY12BA0046	CONNECTOR(12P)	1	
FP6801	K1MY12BA0046	CONNECTOR(12P)	1	
FP6811	K1MY05AA0054	CONNECTOR(5P)	1	
FP6901	K1MY11BA0046	CONNECTOR(11P)	1	
FP8002	K1MY30BA0075	CONNECTOR(30P)	1	
FP8003	K1MY30BA0075	CONNECTOR(30P)	1	
FP8004	K1MY10BA0075	CONNECTOR(10P)	1	
HS6901	K1NA09E00070	CONNECTOR(9P)	1	
IC1001	C1ZBZ0002345	IC	1	
IC1003	C0DBZHD00013	IC	1	
IC1004	C0CBCDC00050	IC	1	
IC1101	C0CBCDC00050	IC	1	
IC1401	C0DBCMD00005	IC	1	
IC1402	C0DBCMD00005	IC	1	
IC1411	C0DBAGZ00029	IC	1	
IC1412	C0EBL0000178	IC	1	

[illegible]	[illegible]	[illegible]	[illegible]	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC1601	C0DBDZZ00008	IC	1	
IC2601	C0GBG0000048	IC	1	
IC2651	C0GBF0000004	IC	1	
IC3001	RFKWPSA0Y320	IC	1	(PAVC-CSG)
IC3002	RFKWDBB017PA	IC	1	
IC3004	MN2DS0009AP	IC	1	
IC3007	C0EBE0000384	IC	1	
IC3009	C3ABPG000145	IC	1	
IC3201	C9ZB00000461	IC	1	
IC3202	C0JBAA000175	IC	1	
IC3203	C0JBAR000367	IC	1	
IC3204	C1AB00001379	IC	1	
IC4001	C0CBCDC00050	IC	1	
IC4002	C0CBCDC00050	IC	1	
IC4003	C0FBBK000049	IC	1	
IC4004	C0JBAR000367	IC	1	
IC4005	C0ABBB000105	IC	1	
IC4006	C0ABBA000150	IC	1	
IC4008	C0ZBZ0001010	IC	1	
IC4009	C0ABBA000077	IC	1	
IC4101	C1BB00000745	IC	1	
IC4701	C1BB00000952	IC	1	
IC5201	C0JBAS000265	IC	1	
IC6001	C0EBB0000036	IC	1	
IC6002	MN101C62FAA	IC	1	
IC6003	C0JBAA000344	IC	1	
IC6007	C0EBE0000124	IC	1	
IC8001	C0ABBA000075	IC	1	
IC8002	C1AB00001828	IC	1	
IC8003	C0JBAE000302	IC	1	
IC8004	C0JBAF000380	IC	1	
IC8005	C0JBAS000110	IC	1	
IC8006	C0JBAB000613	IC	1	
IC8007	C0ABBA000075	IC	1	
IC8101	C1AB00002200	IC	1	
IC8203	C0JBAA000175	IC	1	
IC8204	C3EBGC000056	IC	1	
IC8501	C0ABCA000038	IC	1	
IC8502	C0FBBD000191	IC	1	
IC8601	C1AB00001379	IC	1	
IC8603	C1AB00000084	IC	1	
IC8701	C0DBZGD00038	IC	1	
IC8702	C0DBZGD00038	IC	1	
IC8801	C0BBBA000043	IC	1	
IC8903	AN3917S-E1V	IC	1	
IP1401	K5H3121A0004	FUSE 24V/50A	1	
IP1402	K5H3121A0004	FUSE 24V/50A	1	
IP1421	K5H3121A0004	FUSE 24V/50A	1	
IR6801	B3RAD0000067	IR RECEIVER	1	
JK1401	K2ED2B000002	JACK,DC IN	1	
JK1421	K4ZZ04000033	BATTERY TERMINAL	1	
JK3201	K2HC104B0027	JACK	1	
JK4001	K2HC108B0002	JACK	1	
JK4702	K2HC104B0039	JACK	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
JK4703	K2HC104B0039	JACK	1	
JW1401	K1ZZ00000832	OTHER CONNECTOR	1	
JW1402	K1ZZ00000832	OTHER CONNECTOR	1	
K1001	ERJ2GE0R00X	1/16W 0	1	
K1003	ERJ2GE0R00X	1/16W 0	1	
K1005	ERJ2GE0R00X	1/16W 0	1	
K1007	ERJ2GE0R00X	1/16W 0	1	
K1008	ERJ2GE0R00X	1/16W 0	1	
K1009	ERJ2GE0R00X	1/16W 0	1	
K1010	ERJ2GE0R00X	1/16W 0	1	
K1011	ERJ2GE0R00X	1/16W 0	1	
K1012	ERJ2GE0R00X	1/16W 0	1	
K1013	ERJ2GE0R00X	1/16W 0	1	
K1014	ERJ2GE0R00X	1/16W 0	1	
K1015	ERJ2GE0R00X	1/16W 0	1	
K1016	ERJ2GE0R00X	1/16W 0	1	
K1017	ERJ2GE0R00X	1/16W 0	1	
K1018	ERJ2GE0R00X	1/16W 0	1	
K1019	ERJ2GE0R00X	1/16W 0	1	
K1108	ERJ2GE0R00X	1/16W 0	1	
K1201	ERJ2GE0R00X	1/16W 0	1	
K1202	ERJ2GE0R00X	1/16W 0	1	
K3001	ERJ2GE0R00X	1/16W 0	1	
K3002	ERJ2GE0R00X	1/16W 0	1	
K3003	ERJ2GE0R00X	1/16W 0	1	
K3004	ERJ2GE0R00X	1/16W 0	1	
K5206	ERJ2GE0R00X	1/16W 0	1	
K5207	ERJ2GE0R00X	1/16W 0	1	
L1002	G1C150MA0182	COIL 15UH	1	
L1003	G1C150MA0182	COIL 15UH	1	
L1006	G1C150MA0218	COIL 15UH	1	
L1007	G1C150MA0182	COIL 15UH	1	
L1008	G1C100K00020	CHIP INDUCTOR 10UH	1	
L1009	G1C150MA0182	COIL 15UH	1	
L1010	G1C150Z00004	COIL 15UH	1	
L1102	G1C220KA0038	CHIP INDUCTOR 22UH	1	
L1103	G1C220KA0038	CHIP INDUCTOR 22UH	1	
L1401	G0B200H00005	COIL	1	
L1402	G1C220M00049	COIL	1	
L1403	G1C101KA0023	COIL	1	
L1404	G1C220M00049	COIL	1	
L1415	G1C220KA0055	CHIP INDUCTOR 22UH	1	
L3001	G1C100K00020	CHIP INDUCTOR 10UH	1	
L3002	G1C100K00020	CHIP INDUCTOR 10UH	1	
L3003	J0JCC0000101	COIL	1	
L3004	J0JCC0000101	COIL	1	
L3201	G1C220KA0038	CHIP INDUCTOR 22UH	1	
L3211	G1C100MA0218	COIL	1	
L3251	G1C2R2MA0072	COIL	1	
L4001	G1C220KA0038	CHIP INDUCTOR 22UH	1	
L5201	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8002	ERJ6GEY0R00V	1/10W 0	1	
L8003	ERJ6GEY0R00V	1/10W 0	1	
L8004	ERJ6GEY0R00V	1/10W 0	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L8005	J0JCC0000101	COIL	1	
L8006	J0JCC0000101	COIL	1	
L8007	J0JCC0000101	COIL	1	
L8008	J0JCC0000101	COIL	1	
L8009	J0JCC0000101	COIL	1	
L8010	J0JCC0000101	COIL	1	
L8011	J0JCC0000101	COIL	1	
L8012	J0JCC0000101	COIL	1	
L8013	J0JCC0000101	COIL	1	
L8014	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8015	J0JCC0000101	COIL	1	
L8016	J0JCC0000101	COIL	1	
L8017	J0JCC0000101	COIL	1	
L8018	J0JCC0000101	COIL	1	
L8019	J0JCC0000101	COIL	1	
L8020	J0JCC0000101	COIL	1	
L8021	J0JCC0000101	COIL	1	
L8022	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8025	ERJ6GEY0R00V	1/10W 0	1	
L8101	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8201	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8202	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8501	ERJ6GEY0R00V	1/10W 0	1	
L8601	G1C100K00020	CHIP INDUCTOR 10UH	1	
L8602	ERJ6GEY0R00V	1/10W 0	1	
L8603	G1C120JA0041	COIL 12UH	1	
L8801	G1C220KA0055	CHIP INDUCTOR 22UH	1	
L8904	J0JBC0000036	COIL	1	
L8905	G1CR39JA0041	COIL	1	
L8906	G1C100K00020	CHIP INDUCTOR 10UH	1	
LB2601	J0JHC0000045	COIL	1	
LB2651	J0JHC0000045	COIL	1	
LB2652	J0JHC0000045	COIL	1	
LB3001	J0JHC0000045	COIL	1	
LB3002	J0JHC0000045	COIL	1	
LB3028	J0JHC0000045	COIL	1	
LB3029	J0JHC0000045	COIL	1	
LB3031	J0JBC0000028	COIL	1	
LB3032	J0JCC0000101	COIL	1	
LB3033	J0JHC0000045	COIL	1	
LB3034	J0JHC0000045	COIL	1	
LB3201	J0JCC0000307	COIL	1	
LB3202	J0JCC0000101	COIL	1	
LB3203	J0JCC0000101	COIL	1	
LB3204	J0JHC0000045	COIL	1	
LB3205	J0JHC0000045	COIL	1	
LB3206	J0JHC0000045	COIL	1	
LB3207	J0JHC0000045	COIL	1	
LB3208	J0JHC0000045	COIL	1	
LB3209	J0JHC0000045	COIL	1	
LB3210	J0JCC0000101	COIL	1	
LB3211	J0JCC0000101	COIL	1	
LB3212	J0JHC0000045	COIL	1	
LB4001	J0JCC0000101	COIL	1	
LB4002	J0JCC0000101	COIL	1	
LB4003	J0JBC0000028	COIL	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB4004	J0JBC0000028	COIL	1	
LB4005	J0JCC0000101	COIL	1	
LB4701	J0JBC0000028	COIL	1	
LB4702	J0JBC0000028	COIL	1	
LB4703	J0JBC0000028	COIL	1	
LB4704	J0JBC0000028	COIL	1	
LB4706	J0JBC0000028	COIL	1	
LB4707	J0JBC0000028	COIL	1	
LB4708	J0JBC0000028	COIL	1	
LB4709	J0JBC0000028	COIL	1	
LB4710	J0JBC0000028	COIL	1	
LB4711	J0JBC0000028	COIL	1	
LB5206	J0JBC0000028	COIL	1	
LB5207	J0JCC0000101	COIL	1	
LB5208	J0JCC0000101	COIL	1	
LB5209	J0JCC0000101	COIL	1	
LB5210	J0JCC0000101	COIL	1	
LB5211	J0JCC0000101	COIL	1	
LB5212	J0JCC0000101	COIL	1	
LB5213	J0JCC0000101	COIL	1	
LB5216	J0JCC0000101	COIL	1	
LB5218	J0JDC0000080	COIL	1	
LB5219	J0JCC0000101	COIL	1	
LB5221	J0JCC0000307	COIL	1	
LB5222	J0JCC0000101	COIL	1	
LB5223	J0JCC0000307	COIL	1	
LB5224	J0JCC0000101	COIL	1	
LB5226	J0JCC0000101	COIL	1	
LB5227	J0JCC0000101	COIL	1	
LB5228	J0JCC0000101	COIL	1	
LB5229	J0JCC0000101	COIL	1	
LB5230	J0JHC0000045	COIL	1	
LB5231	J0JCC0000101	COIL	1	
LB5232	J0JCC0000101	COIL	1	
LB6002	J0JHC0000045	COIL	1	
LB6201	ERJ3GEY0R00V	1/10W 0	1	
LB6202	ERJ3GEY0R00V	1/10W 0	1	
LB6217	ERJ3GEY0R00V	1/10W 0	1	
LB6221	ERJ3GEY0R00V	1/10W 0	1	
LB6222	ERJ3GEY0R00V	1/10W 0	1	
LB6223	ERJ3GEY0R00V	1/10W 0	1	
LB6224	ERJ3GEY0R00V	1/10W 0	1	
LB6225	ERJ3GEY0R00V	1/10W 0	1	
LB6226	ERJ3GEY0R00V	1/10W 0	1	
LB6227	ERJ3GEY0R00V	1/10W 0	1	
LB6228	ERJ3GEY0R00V	1/10W 0	1	
LB6229	ERJ3GEY0R00V	1/10W 0	1	
LB8001	J0JCC0000186	COIL	1	
LB8002	J0JHC0000045	COIL	1	
LB8003	J0JHC0000045	COIL	1	
P3201	K1KA50BA0060	CONNECTOR(50P)	1	
P8001	K1KA20BA0181	CONNECTOR(20P)	1	
P8006	K1KA26BA0181	CONNECTOR(26P)	1	
Q1001	B1DHCD000023	TRANSISTOR	1	
Q1002	B1DHCD000023	TRANSISTOR	1	

[illegible]	[illegible]	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q1003	B1DHCD000023	TRANSISTOR	1	
Q1004	B1DHCD000023	TRANSISTOR	1	
Q1101	B1BBCF000026	TRANSISTOR	1	
Q1201	B1CFNC000004	TRANSISTOR	1	
Q1202	B1DHCC000039	TRANSISTOR	1	
Q1401	B1DHCD000023	TRANSISTOR	1	
Q1402	B1DHFD000008	TRANSISTOR	1	
Q1403	B1DHFD000008	TRANSISTOR	1	
Q1412	2SB1218ARL	TRANSISTOR	1	
Q1621	B1BDDF000012	TRANSISTOR	1	
Q1622	B1CFHA000002	TRANSISTOR	1	
Q3201	2SB1218ARL	TRANSISTOR	1	
Q3202	2SD132800L	TRANSISTOR	1	
Q3203	2SD1819A0L	TRANSISTOR	1	
Q3204	2SB1218ARL	TRANSISTOR	1	
Q4001	2SD1819A0L	TRANSISTOR	1	
Q4002	2SD1819A0L	TRANSISTOR	1	
Q5201	2SD1819A0L	TRANSISTOR	1	
Q5202	2SD1819A0L	TRANSISTOR	1	
Q5211	B1ADPC000004	TRANSISTOR	1	
Q5215	B1ADPC000004	TRANSISTOR	1	
Q8001	2SB1218ARL	TRANSISTOR	1	
Q8002	2SD1819A0L	TRANSISTOR	1	
Q8003	2SB1218ARL	TRANSISTOR	1	
Q8004	2SD1819A0L	TRANSISTOR	1	
Q8005	2SD1819A0L	TRANSISTOR	1	
Q8007	B1DHFD000008	TRANSISTOR	1	
Q8403	2SD1819A0L	TRANSISTOR	1	
Q8601	2SB0710ARL	TRANSISTOR	1	
Q8606	2SB1218ARL	TRANSISTOR	1	
Q8608	2SB1218ARL	TRANSISTOR	1	
Q8609	2SB1218ARL	TRANSISTOR	1	
Q8614	2SB1218ARL	TRANSISTOR	1	
Q8618	2SB1218ARL	TRANSISTOR	1	
Q8801	XP0460100L	TRANSISTOR	1	
Q8802	XP0460100L	TRANSISTOR	1	
QR1007	UNR521300L	TRANSISTOR	1	
QR1008	UNR521300L	TRANSISTOR	1	
QR1202	UNR521300L	TRANSISTOR	1	
QR1402	UNR521300L	TRANSISTOR	1	
QR1403	UNR521300L	TRANSISTOR	1	
QR1411	B1ZBZ0000049	TRANSISTOR	1	
QR1413	B1GDCFJN0011	TRANSISTOR	1	
QR1602	UNR521300L	TRANSISTOR	1	
QR1603	UNR521300L	TRANSISTOR	1	
QR3201	B1GDCFJN0011	TRANSISTOR	1	
QR3202	UNR521300L	TRANSISTOR	1	
QR4001	UNR521300L	TRANSISTOR	1	
QR4002	B1GDCFJN0011	TRANSISTOR	1	
QR4004	B1GDCFJN0011	TRANSISTOR	1	
QR4005	B1GDCFJN0011	TRANSISTOR	1	
QR4008	UNR521300L	TRANSISTOR	1	
QR4009	B1GFGCAA0001	TRANSISTOR	1	
QR4010	B1GDCFJN0011	TRANSISTOR	1	
QR4011	UNR521300L	TRANSISTOR	1	
QR4014	UNR521300L	TRANSISTOR	1	

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR4015	UNR521300L	TRANSISTOR	1	
QR4016	UNR521300L	TRANSISTOR	1	
QR4017	UNR521300L	TRANSISTOR	1	
QR4018	UNR521300L	TRANSISTOR	1	
QR4702	B1GFGCAA0001	TRANSISTOR	1	
QR4703	B1GFGCAA0001	TRANSISTOR	1	
QR5221	UNR212100L	TRANSISTOR	1	
QR6001	UNR521300L	TRANSISTOR	1	
QR6002	UNR521300L	TRANSISTOR	1	
QR6003	UNR521300L	TRANSISTOR	1	
QR8001	UNR521300L	TRANSISTOR	1	
QR8602	UNR521300L	TRANSISTOR	1	
QR8603	UNR511300L	TRANSISTOR	1	
QR8604	UNR521300L	TRANSISTOR	1	
QR8605	UNR221100L	TRANSISTOR	1	
QR8606	UNR211100L	TRANSISTOR	1	
QR8607	UNR521300L	TRANSISTOR	1	
R1005	ERJ2RHD103X	1/16W 10K	1	
R1006	ERJ2RHD563X	1/16W 56K	1	
R1011	ERJ2GEJ472X	1/16W 4.7K	1	
R1012	ERJ2RHD103X	1/16W 10K	1	
R1013	ERJ2RHD333X	1/16W 33K	1	
R1014	ERJ2RHD103X	1/16W 10K	1	
R1015	ERJ2RHD333X	1/16W 33K	1	
R1016	ERJ2GEJ183X	1/16W 18K	1	
R1018	ERJ2GEJ822X	1/16W 8.2K	1	
R1019	ERJ2RHD472X	1/16W 4.7K	1	
R1020	ERJ2GEJ272X	1/16W 2.7K	1	
R1022	ERJ2RHD123X	1/16W 12K	1	
R1023	ERJ2RHD333X	1/16W 33K	1	
R1027	ERJ2RHD332X	1/16W 3.3K	1	
R1028	ERJ2RHD332X	1/16W 3.3K	1	
R1029	ERJ2RHD333X	1/16W 33K	1	
R1030	ERJ2RHD332X	1/16W 3.3K	1	
R1032	ERJ2RHD183X	1/16W 18K	1	
R1033	ERJ2RHD102X	1/16W 1K	1	
R1034	ERJ2RHD822X	1/16W 8.2K	1	
R1035	ERJ2GEJ331X	1/16W 330	1	
R1037	ERJ2RHD393X	1/16W 39K	1	
R1038	ERJ2RHD102X	1/16W 1K	1	
R1039	ERJ2RHD822X	1/16W 8.2K	1	
R1040	ERJ2RHD122X	1/16W 1.2K	1	
R1042	ERJ2GEJ563X	1/16W 56K	1	
R1043	ERJ2GEJ393X	1/16W 39K	1	
R1044	ERJ3GEYJ102V	1/10W 1K	1	
R1045	ERJ2GEJ102X	1/16W 1K	1	
R1046	ERJ2RHD183X	1/16W 18K	1	
R1047	ERJ2RHD102X	1/16W 1K	1	
R1048	ERJ2RHD682X	1/16W 6.8K	1	
R1049	ERJ2RHD221X	1/16W 220	1	
R1060	ERJ2GEJ151X	1/16W 150	1	
R1061	ERJ2GEJ822X	1/16W 8.2K	1	
R1063	ERJ2RHD123X	1/16W 12K	1	
R1064	ERJ2RHD333X	1/16W 33K	1	
R1101	ERJ2GEJ562X	1/16W 5.6K	1	
R1102	ERJ2RHD683X	1/16W 68K	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R1103	ERJ2RHD182X	1/16W 1.8K	1	
R1104	ERJ2RHD562X	1/16W 5.6K	1	
R1105	ERJ2GE0R00X	1/16W 0	1	
R1106	ERJ3GEYJ100V	1/10W 10	1	
R1107	ERJ3GEYJ100V	1/10W 10	1	
R1108	ERJ3GEYJ330V	1/10W 33	1	
R1109	ERJ3GEYJ100V	1/10W 10	1	
R1110	ERJ2GE0R00X	1/16W 0	1	
R1204	ERJ2GEJ473X	1/16W 47K	1	
R1401	ERJ2GEJ333X	1/16W 33K	1	
R1406	ERJ2RHD223X	1/16W 22K	1	
R1407	ERJ2RHD332X	1/16W 3.3K	1	
R1409	ERJ2GEJ103X	1/16W 10K	1	
R1410	ERJ2GEJ103X	1/16W 10K	1	
R1411	ERJ2GEJ103X	1/16W 10K	1	
R1412	ERJ2GEJ104X	1/16W 100K	1	
R1413	ERJ2GEJ223X	1/16W 22K	1	
R1414	ERJ2GEJ103X	1/16W 10K	1	
R1415	ERJ2GEJ103X	1/16W 10K	1	
R1416	ERJ2GEJ473X	1/16W 47K	1	
R1418	ERJ2GEJ105X	1/16W 1M	1	
R1419	ERJ2GEJ333X	1/16W 33K	1	
R1420	ERJ2RHD223X	1/16W 22K	1	
R1421	ERJ2RHD332X	1/16W 3.3K	1	
R1423	ERJ3GEY0R00V	1/10W 0	1	
R1621	D1BFR220A007	RESISTOR	1	
R1622	ERJ2RHD103X	1/16W 10K	1	
R1623	ERJ2RHD104X	1/16W 0.1M	1	
R1624	ERJ2RHD104X	1/16W 0.1M	1	
R1625	ERJ2RHD104X	1/16W 0.1M	1	
R1626	ERJ2RHD103X	1/16W 10K	1	
R1627	ERJ2RHD104X	1/16W 0.1M	1	
R1628	ERJ2RHD683X	1/16W 68K	1	
R1629	ERJ2RHD104X	1/16W 0.1M	1	
R1630	ERJ2RHD183X	1/16W 18K	1	
R1633	ERJ2GEJ102X	1/16W 1K	1	
R1635	ERJ2GEJ473X	1/16W 47K	1	
R1638	ERJ2GEJ102X	1/16W 1K	1	
R1643	ERJ2GEJ103X	1/16W 10K	1	
R2501	ERJ2GEJ471X	1/16W 470	1	
R2523	ERJ2GEJ473X	1/16W 47K	1	
R2601	ERJ2GEJ103X	1/16W 10K	1	
R2602	ERJ2GEJ103X	1/16W 10K	1	
R2651	ERJ2GEJ471X	1/16W 470	1	
R2652	ERJ12RQJR68U	1/2W 68	1	
R2653	ERJ2GEJ153X	1/16W 15K	1	
R3001	ERJ2GEJ100X	1/16W 10	1	
R3003	ERJ2GEJ100X	1/16W 10	1	
R3004	ERJ2GEJ101X	1/16W 100	1	
R3005	ERJ2GEJ473X	1/16W 47K	1	
R3007	ERJ2GEJ104X	1/16W 100K	1	
R3008	ERJ2GEJ104X	1/16W 100K	1	
R3009	ERJ2GEJ333X	1/16W 33K	1	
R3010	ERJ2GEJ680X	1/16W 68	1	
R3011	ERJ2GEJ182X	1/16W 1.8K	1	
R3013	ERJ2GEJ330X	1/16W 33	1	
R3014	ERJ3RBD333V	1/16W 33K	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3015	ERJ2GEJ331X	1/16W 330	1	
R3016	ERJ2GEJ471X	1/16W 470	1	
R3017	ERJ2GEJ471X	1/16W 470	1	
R3018	ERJ2GEJ471X	1/16W 470	1	
R3019	ERJ3RBD102V	1/16W 1K	1	
R3020	ERJ2GEJ221X	1/16W 220	1	
R3021	ERJ2GEJ105X	1/16W 1M	1	
R3022	ERJ3RBD222V	1/16W 2.2K	1	
R3023	ERJ3RBD331V	1/16W 330	1	
R3024	ERJ3RBD181V	1/16W 180	1	
R3025	ERJ2GEJ390X	1/16W 39	1	
R3026	ERJ3RBD181V	1/16W 180	1	
R3027	ERJ2GEJ330X	1/16W 33	1	
R3028	ERJ2GEJ103X	1/16W 10K	1	
R3029	ERJ2GEJ103X	1/16W 10K	1	
R3030	ERJ3RBD181V	1/16W 180	1	
R3031	ERJ2GEJ270X	1/16W 27	1	
R3032	ERJ3RBD181V	1/16W 180	1	
R3033	ERJ2GEJ270X	1/16W 27	1	
R3034	ERJ3RBD181V	1/16W 180	1	
R3035	ERJ2GEJ270X	1/16W 27	1	
R3036	ERJ2GEJ100X	1/16W 10	1	
R3037	ERJ2GEJ470X	1/16W 47	1	
R3038	ERJ2GEJ100X	1/16W 10	1	
R3039	ERJ2GEJ100X	1/16W 10	1	
R3040	ERJ2GEJ100X	1/16W 10	1	
R3041	ERJ2GEJ100X	1/16W 10	1	
R3042	ERJ2GEJ103X	1/16W 10K	1	
R3044	ERJ2GEJ472X	1/16W 4.7K	1	
R3201	ERJ3GEY0R00V	1/10W 0	1	
R3202	ERJ3GEY0R00V	1/10W 0	1	
R3203	ERJ2GE0R00X	1/16W 0	1	
R3205	ERJ3GEY0R00V	1/10W 0	1	
R3206	ERJ3GEY0R00V	1/10W 0	1	
R3207	ERJ3GEY0R00V	1/10W 0	1	
R3208	ERJ3GEY0R00V	1/10W 0	1	
R3209	ERJ3GEY0R00V	1/10W 0	1	
R3210	ERJ3GEY0R00V	1/10W 0	1	
R3212	ERJ3GEY0R00V	1/10W 0	1	
R3213	ERJ3GEY0R00V	1/10W 0	1	
R3214	ERJ2GEJ821X	1/16W 820	1	
R3215	ERJ2GE0R00X	1/16W 0	1	
R3217	ERJ3RED750V	1/16W 75	1	
R3218	ERJ2GEJ101X	1/16W 100	1	
R3220	ERJ2GEJ183X	1/16W 18K	1	
R3221	ERJ2GEJ224X	1/16W 220K	1	
R3222	ERJ2GEJ104X	1/16W 100K	1	
R3223	ERJ2GEJ103X	1/16W 10K	1	
R3224	ERJ2GEJ392X	1/16W 3.9K	1	
R3225	ERJ2GEJ104X	1/16W 100K	1	
R3226	ERJ2GEJ102X	1/16W 1K	1	
R3227	ERJ2GEJ222X	1/16W 2.2K	1	
R3228	ERJ3GEY0R00V	1/10W 0	1	
R3229	ERJ3GEY0R00V	1/10W 0	1	
R3230	ERJ3GEY0R00V	1/10W 0	1	
R3231	ERJ3GEY0R00V	1/10W 0	1	
R3232	ERJ2GEJ101X	1/16W 100	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3233	ERJ2GEJ101X	1/16W 100	1	
R3234	ERJ2GEJ101X	1/16W 100	1	
R3235	ERJ2GEJ101X	1/16W 100	1	
R3236	ERJ2GEJ102X	1/16W 1K	1	
R3237	ERJ2GEJ101X	1/16W 100	1	
R3247	ERJ2GEJ332X	1/16W 3.3K	1	
R3249	ERJ3GEY0R00V	1/10W 0	1	
R4001	ERJ2GEJ273X	1/16W 27K	1	
R4002	ERJ2GEJ273X	1/16W 27K	1	
R4003	ERJ2GEJ333X	1/16W 33K	1	
R4004	ERJ2GEJ333X	1/16W 33K	1	
R4005	ERJ2GEJ473X	1/16W 47K	1	
R4006	ERJ2GEJ473X	1/16W 47K	1	
R4007	ERJ2GEJ473X	1/16W 47K	1	
R4008	ERJ2GEJ473X	1/16W 47K	1	
R4009	ERJ2GEJ101X	1/16W 100	1	
R4010	ERJ2GEJ101X	1/16W 100	1	
R4012	ERJ2GEJ472X	1/16W 4.7K	1	
R4015	ERJ2GEJ821X	1/16W 820	1	
R4016	ERJ2GEJ821X	1/16W 820	1	
R4017	ERJ2GE0R00X	1/16W 0	1	
R4018	ERJ2GE0R00X	1/16W 0	1	
R4019	ERJ2GEJ153X	1/16W 15K	1	
R4020	ERJ2GEJ153X	1/16W 15K	1	
R4023	ERJ2GEJ103X	1/16W 10K	1	
R4024	ERJ2GEJ103X	1/16W 10K	1	
R4025	ERJ2GEJ103X	1/16W 10K	1	
R4026	ERJ2GEJ103X	1/16W 10K	1	
R4031	ERJ2GEJ563X	1/16W 56K	1	
R4032	ERJ2GEJ563X	1/16W 56K	1	
R4033	ERJ2GEJ100X	1/16W 10	1	
R4034	ERJ2GEJ100X	1/16W 10	1	
R4035	ERJ2GEJ103X	1/16W 10K	1	
R4036	ERJ2GEJ103X	1/16W 10K	1	
R4038	ERJ2GEJ104X	1/16W 100K	1	
R4039	ERJ2GEJ103X	1/16W 10K	1	
R4041	ERJ2GEJ102X	1/16W 1K	1	
R4046	ERJ2GEJ473X	1/16W 47K	1	
R4047	ERJ2GEJ473X	1/16W 47K	1	
R4048	ERJ2GEJ222X	1/16W 2.2K	1	
R4049	ERJ2GEJ222X	1/16W 2.2K	1	
R4050	ERJ2GEJ473X	1/16W 47K	1	
R4051	ERJ2GEJ473X	1/16W 47K	1	
R4052	ERJ2GEJ222X	1/16W 2.2K	1	
R4053	ERJ2GEJ102X	1/16W 1K	1	
R4054	ERJ2GEJ104X	1/16W 100K	1	
R4055	ERJ2GEJ472X	1/16W 4.7K	1	
R4061	ERJ2GE0R00X	1/16W 0	1	
R4065	ERJ2GEJ682X	1/16W 6.8K	1	
R4066	ERJ2GEJ682X	1/16W 6.8K	1	
R4072	ERJ2GEJ104X	1/16W 100K	1	
R4073	ERJ2GEJ104X	1/16W 100K	1	
R4076	ERJ2GEJ473X	1/16W 47K	1	
R4078	ERJ2GEJ2R2X	1/16W 2.2	1	
R4101	ERJ2GEJ103X	1/16W 10K	1	
R4102	ERJ2GEJ103X	1/16W 10K	1	
R4103	ERJ2GEJ123X	1/16W 12K	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4104	ERJ2GEJ103X	1/16W 10K	1	
R4701	ERJ2GEJ473X	1/16W 47K	1	
R4702	ERJ2GEJ473X	1/16W 47K	1	
R4703	ERJ2GEJ562X	1/16W 5.6K	1	
R4704	ERJ2GEJ562X	1/16W 5.6K	1	
R4707	ERJ2GEJ223X	1/16W 22K	1	
R4709	ERJ2GEJ102X	1/16W 1K	1	
R4710	ERJ2GEJ223X	1/16W 22K	1	
R4711	ERJ2GEJ100X	1/16W 10	1	
R4712	ERJ2GEJ100X	1/16W 10	1	
R4725	ERJ8GEYJ1R5V	1/4W 1.5	1	
R4726	ERJ8GEYJ1R5V	1/4W 1.5	1	
R4727	ERJ2GEJ102X	1/16W 1K	1	
R4728	ERJ2GEJ102X	1/16W 1K	1	
R4729	ERJ2GEJ472X	1/16W 4.7K	1	
R4730	ERJ2GEJ472X	1/16W 4.7K	1	
R4731	ERJ8GEYJ1R5V	1/4W 1.5	1	
R4732	ERJ2GEJ1R5X	1/16W 1.5	1	
R4733	ERJ2GEJ102X	1/16W 1K	1	
R4734	ERJ2GEJ102X	1/16W 1K	1	
R4735	ERJ2GEJ472X	1/16W 4.7K	1	
R4736	ERJ2GEJ472X	1/16W 4.7K	1	
R5201	ERJ2GEJ223X	1/16W 22K	1	
R5203	ERJ2GEJ333X	1/16W 33K	1	
R5204	ERJ2GEJ102X	1/16W 1K	1	
R5205	ERJ2GEJ102X	1/16W 1K	1	
R5208	ERJ2GEJ331X	1/16W 330	1	
R5209	ERJ2GEJ331X	1/16W 330	1	
R5210	ERJ2GEJ100X	1/16W 10	1	
R5211	ERJ2GEJ2R2X	1/16W 2.2	1	
R5212	ERJ12YJ270U	1/2W 27	1	
R5213	ERJ2GEJ473X	1/16W 47K	1	
R5214	ERJ2GEJ153X	1/16W 15K	1	
R5215	ERJ2GEJ2R2X	1/16W 2.2	1	
R5216	ERJ12YJ270U	1/2W 27	1	
R5217	ERJ2GEJ473X	1/16W 47K	1	
R5218	ERJ2GEJ100X	1/16W 10	1	
R5219	ERJ3RED910V	1/16W 91	1	
R5220	ERJ3RED910V	1/16W 91	1	
R5221	ERJ2GEJ102X	1/16W 1K	1	
R6004	ERJ3RBD273V	1/16W 27K	1	
R6005	ERJ3RBD103V	1/16W 10K	1	
R6007	ERJ3RBD683V	1/16W 68K	1	
R6010	ERJ3RBD333V	1/16W 33K	1	
R6011	ERJ2GE0R00X	1/16W 0	1	
R6013	ERJ3RBD562V	1/16W 5.6K	1	
R6019	ERJ2GE0R00X	1/16W 0	1	
R6022	ERJ2GEJ152X	1/16W 1.5K	1	
R6026	ERJ2GEJ103X	1/16W 10K	1	
R6027	ERJ2GEJ273X	1/16W 27K	1	
R6030	ERJ3GEY0R00V	1/10W 0	1	
R6032	ERJ2GEJ473X	1/16W 47K	1	
R6033	ERJ3GEY0R00V	1/10W 0	1	
R6034	ERJ3GEY0R00V	1/10W 0	1	
R6035	ERJ3GEY0R00V	1/10W 0	1	
R6039	ERJ2GEJ473X	1/16W 47K	1	
R6042	ERJ2GE0R00X	1/16W 0	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6043	ERJ2RHD104X	1/16W 0.1M	1	
R6049	ERJ2GEJ473X	1/16W 47K	1	
R6201	ERJ2GE0R00X	1/16W 0	1	
R6202	ERJ2GEJ221X	1/16W 220	1	
R6203	ERJ2GEJ221X	1/16W 220	1	
R6801	ERJ2GEJ122X	1/16W 1.2K	1	
R6802	ERJ2GEJ122X	1/16W 1.2K	1	
R6803	ERJ2GEJ152X	1/16W 1.5K	1	
R6804	ERJ2GEJ222X	1/16W 2.2K	1	
R6805	ERJ2GEJ331X	1/16W 330	1	
R6806	ERJ2GEJ151X	1/16W 150	1	
R6807	ERJ2GEJ331X	1/16W 330	1	
R6808	ERJ2GEJ220X	1/16W 22	1	
R6811	ERJ2GEJ272X	1/16W 2.7K	1	
R6812	ERJ2GEJ222X	1/16W 2.2K	1	
R6813	ERJ2GEJ332X	1/16W 3.3K	1	
R6814	ERJ2GEJ472X	1/16W 4.7K	1	
R6815	ERJ2GEJ682X	1/16W 6.8K	1	
R6816	ERJ2GEJ153X	1/16W 15K	1	
R6817	ERJ2GEJ473X	1/16W 47K	1	
R6821	ERJ2GEJ122X	1/16W 1.2K	1	
R6822	ERJ2GEJ152X	1/16W 1.5K	1	
R6823	ERJ2GEJ222X	1/16W 2.2K	1	
R6824	ERJ2GEJ332X	1/16W 3.3K	1	
R6825	ERJ2GEJ472X	1/16W 4.7K	1	
R6826	ERJ2GEJ682X	1/16W 6.8K	1	
R6827	ERJ2GEJ153X	1/16W 15K	1	
R6828	ERJ2GEJ473X	1/16W 47K	1	
R6831	ERJ2GEJ331X	1/16W 330	1	
R6897	ERJ3GEY0R00V	1/10W 0	1	
R6898	ERJ3GEY0R00V	1/10W 0	1	
R6899	ERJ3GEY0R00V	1/10W 0	1	
R6901	ERJ2GEJ100X	1/16W 10	1	
R6902	ERJ2GEJ100X	1/16W 10	1	
R6903	ERJ2GEJ100X	1/16W 10	1	
R6904	ERJ2GEJ100X	1/16W 10	1	
R6905	ERJ2GEJ100X	1/16W 10	1	
R6906	ERJ2GEJ100X	1/16W 10	1	
R8002	ERJ2GEJ103X	1/16W 10K	1	
R8004	ERJ2GEJ562X	1/16W 5.6K	1	
R8005	ERJ2GEJ272X	1/16W 2.7K	1	
R8006	ERJ2GE0R00X	1/16W 0	1	
R8007	ERJ2GE0R00X	1/16W 0	1	
R8008	ERJ2GE0R00X	1/16W 0	1	
R8009	ERJ2GEJ103X	1/16W 10K	1	
R8010	ERJ2GEJ331X	1/16W 330	1	
R8011	ERJ2GEJ331X	1/16W 330	1	
R8012	ERJ2GEJ331X	1/16W 330	1	
R8013	ERJ2GE0R00X	1/16W 0	1	
R8014	ERJ2GE0R00X	1/16W 0	1	
R8015	ERJ2GE0R00X	1/16W 0	1	
R8016	ERJ2GEJ101X	1/16W 100	1	
R8017	ERJ2GEJ101X	1/16W 100	1	
R8018	ERJ2GEJ121X	1/16W 120	1	
R8019	ERJ2GEJ101X	1/16W 100	1	
R8020	ERJ2GEJ101X	1/16W 100	1	
R8021	ERJ2GE0R00X	1/16W 0	1	

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Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8022	ERJ2GEJ183X	1/16W 18K	1	
R8023	ERJ2GEJ272X	1/16W 2.7K	1	
R8024	ERJ2GEJ222X	1/16W 2.2K	1	
R8025	ERJ2GEJ222X	1/16W 2.2K	1	
R8026	ERJ2GE0R00X	1/16W 0	1	
R8027	ERJ2GE0R00X	1/16W 0	1	
R8028	ERJ2GE0R00X	1/16W 0	1	
R8029	J0JBC0000086	COIL	1	
R8030	J0JBC0000086	COIL	1	
R8031	J0JBC0000086	COIL	1	
R8032	J0JBC0000086	COIL	1	
R8033	J0JBC0000086	COIL	1	
R8034	J0JBC0000086	COIL	1	
R8035	J0JBC0000086	COIL	1	
R8036	J0JBC0000086	COIL	1	
R8037	J0JBC0000086	COIL	1	
R8038	J0JBC0000086	COIL	1	
R8039	J0JBC0000086	COIL	1	
R8040	J0JBC0000086	COIL	1	
R8041	J0JBC0000086	COIL	1	
R8042	J0JBC0000086	COIL	1	
R8043	J0JBC0000086	COIL	1	
R8044	J0JBC0000086	COIL	1	
R8045	J0JBC0000086	COIL	1	
R8046	J0JBC0000086	COIL	1	
R8047	ERJ2GE0R00X	1/16W 0	1	
R8048	ERJ2GE0R00X	1/16W 0	1	
R8049	J0JCC0000186	COIL	1	
R8050	ERJ2GE0R00X	1/16W 0	1	
R8051	ERJ3GEYJ472V	1/10W 4.7K	1	
R8052	ERJ2GE0R00X	1/16W 0	1	
R8053	ERJ2GE0R00X	1/16W 0	1	
R8054	ERJ2GE0R00X	1/16W 0	1	
R8055	ERJ2GE0R00X	1/16W 0	1	
R8056	ERJ2GE0R00X	1/16W 0	1	
R8057	ERJ2GE0R00X	1/16W 0	1	
R8058	ERJ2GE0R00X	1/16W 0	1	
R8059	ERJ2GE0R00X	1/16W 0	1	
R8060	ERJ2GE0R00X	1/16W 0	1	
R8061	ERJ2GE0R00X	1/16W 0	1	
R8062	ERJ2GE0R00X	1/16W 0	1	
R8063	J0JCC0000119	COIL	1	
R8064	ERJ2GE0R00X	1/16W 0	1	
R8065	J0JCC0000119	COIL	1	
R8066	ERJ2GEJ101X	1/16W 100	1	
R8067	ERJ2GE0R00X	1/16W 0	1	
R8068	ERJ2GE0R00X	1/16W 0	1	
R8069	ERJ2GEJ101X	1/16W 100	1	
R8070	ERJ2GE0R00X	1/16W 0	1	
R8071	ERJ2GE0R00X	1/16W 0	1	
R8072	ERJ2GE0R00X	1/16W 0	1	
R8074	ERJ2GEJ103X	1/16W 10K	1	
R8075	ERJ2GEJ101X	1/16W 100	1	
R8076	ERJ2GEJ102X	1/16W 1K	1	
R8077	ERJ2GEJ101X	1/16W 100	1	
R8078	J0JCC0000101	COIL	1	
R8079	ERJ2GEJ102X	1/16W 1K	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8080	ERJ2GEJ220X	1/16W 22	1	
R8081	ERJ2GEJ221X	1/16W 220	1	
R8082	ERJ2GEJ102X	1/16W 1K	1	
R8085	ERJ2GE0R00X	1/16W 0	1	
R8086	ERJ2GE0R00X	1/16W 0	1	
R8088	ERJ3GEY0R00V	1/10W 0	1	
R8089	ERJ2GE0R00X	1/16W 0	1	
R8090	ERJ2GEJ102X	1/16W 1K	1	
R8091	ERJ3GEYJ391V	1/10W 390	1	
R8092	ERJ2GEJ104X	1/16W 100K	1	
R8101	ERJ2GEJ101X	1/16W 100	1	
R8102	ERJ3GEY0R00V	1/10W 0	1	
R8110	J0JCC0000307	COIL	1	
R8111	J0JCC0000307	COIL	1	
R8112	J0JCC0000307	COIL	1	
R8113	J0JCC0000307	COIL	1	
R8114	J0JCC0000307	COIL	1	
R8115	J0JCC0000307	COIL	1	
R8116	J0JCC0000307	COIL	1	
R8117	J0JCC0000307	COIL	1	
R8118	J0JCC0000307	COIL	1	
R8119	J0JCC0000307	COIL	1	
R8120	J0JCC0000307	COIL	1	
R8121	J0JCC0000307	COIL	1	
R8122	J0JCC0000307	COIL	1	
R8123	J0JCC0000307	COIL	1	
R8124	J0JCC0000307	COIL	1	
R8125	J0JCC0000307	COIL	1	
R8126	J0JHC0000045	COIL	1	
R8127	ERJ3GEY0R00V	1/10W 0	1	
R8128	ERJ3GEY0R00V	1/10W 0	1	
R8151	ERJ3GEY0R00V	1/10W 0	1	
R8152	ERJ3GEY0R00V	1/10W 0	1	
R8153	ERJ3GEY0R00V	1/10W 0	1	
R8154	ERJ3GEY0R00V	1/10W 0	1	
R8155	ERJ3GEY0R00V	1/10W 0	1	
R8156	ERJ3GEY0R00V	1/10W 0	1	
R8157	ERJ3GEY0R00V	1/10W 0	1	
R8158	ERJ3GEY0R00V	1/10W 0	1	
R8159	ERJ3GEY0R00V	1/10W 0	1	
R8160	ERJ3GEY0R00V	1/10W 0	1	
R8161	ERJ3GEY0R00V	1/10W 0	1	
R8162	ERJ3GEY0R00V	1/10W 0	1	
R8163	ERJ3GEY0R00V	1/10W 0	1	
R8165	ERJ3GEY0R00V	1/10W 0	1	
R8166	ERJ3GEY0R00V	1/10W 0	1	
R8203	ERJ2GEJ332X	1/16W 3.3K	1	
R8204	ERJ2GEJ221X	1/16W 220	1	
R8406	ERJ3GEYJ183V	1/10W 18K	1	
R8407	ERJ3GEYJ123V	1/10W 12K	1	
R8409	ERJ2GEJ821X	1/16W 820	1	
R8413	ERJ3GEY0R00V	1/10W 0	1	
R8501	ERJ2GEJ472X	1/16W 4.7K	1	
R8502	ERJ2GEJ183X	1/16W 18K	1	
R8503	ERJ2GEJ223X	1/16W 22K	1	
R8504	ERJ2GEJ123X	1/16W 12K	1	
R8505	ERJ2GEJ153X	1/16W 15K	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8506	ERJ2GEJ682X	1/16W 6.8K	1	
R8507	ERJ2GEJ683X	1/16W 68K	1	
R8508	ERJ2GEJ183X	1/16W 18K	1	
R8509	ERJ2GEJ333X	1/16W 33K	1	
R8510	ERJ2GEJ223X	1/16W 22K	1	
R8511	ERJ2GEJ562X	1/16W 5.6K	1	
R8512	ERJ2GEJ103X	1/16W 10K	1	
R8513	ERJ2GEJ103X	1/16W 10K	1	
R8514	ERJ2GE0R00X	1/16W 0	1	
R8515	ERJ2GEJ683X	1/16W 68K	1	
R8516	ERJ2GEJ220X	1/16W 22	1	
R8517	ERJ2GEJ220X	1/16W 22	1	
R8518	ERJ2GEJ220X	1/16W 22	1	
R8601	ERJ2GEJ272X	1/16W 2.7K	1	
R8602	ERJ2GEJ332X	1/16W 3.3K	1	
R8603	ERJ2GEJ272X	1/16W 2.7K	1	
R8604	ERJ2GEJ472X	1/16W 4.7K	1	
R8605	ERJ2GE0R00X	1/16W 0	1	
R8606	J0JHC0000045	COIL	1	
R8608	J0JBC0000036	COIL	1	
R8611	J0JBC0000036	COIL	1	
R8612	J0JCC0000307	COIL	1	
R8613	J0JCC0000307	COIL	1	
R8614	J0JCC0000307	COIL	1	
R8615	J0JCC0000307	COIL	1	
R8618	ERJ2GEJ102X	1/16W 1K	1	
R8619	ERJ2GEJ102X	1/16W 1K	1	
R8620	ERJ2GEJ102X	1/16W 1K	1	
R8621	ERJ2GE0R00X	1/16W 0	1	
R8622	ERJ2GEJ222X	1/16W 2.2K	1	
R8623	ERJ2GE0R00X	1/16W 0	1	
R8624	ERJ2GEJ332X	1/16W 3.3K	1	
R8626	ERJ2GEJ222X	1/16W 2.2K	1	
R8627	ERJ2GEJ821X	1/16W 820	1	
R8628	ERJ2GEJ821X	1/16W 820	1	
R8629	ERJ2GEJ821X	1/16W 820	1	
R8630	ERJ2GE0R00X	1/16W 0	1	
R8633	ERJ2GEJ472X	1/16W 4.7K	1	
R8641	ERJ2GEJ271X	1/16W 270	1	
R8647	ERJ2GEJ271X	1/16W 270	1	
R8649	ERJ2GEJ101X	1/16W 100	1	
R8651	ERJ2GEJ224X	1/16W 220K	1	
R8653	ERJ2GEJ103X	1/16W 10K	1	
R8655	ERJ2GEJ104X	1/16W 100K	1	
R8657	ERJ2GE0R00X	1/16W 0	1	
R8659	ERJ2GEJ392X	1/16W 3.9K	1	
R8662	ERJ2GE0R00X	1/16W 0	1	
R8677	ERJ2GEJ123X	1/16W 12K	1	
R8679	ERJ3GEYJ621V	1/10W 620	1	
R8680	ERJ3GEYJ621V	1/10W 620	1	
R8682	ERJ2GEJ273X	1/16W 27K	1	
R8684	ERJ2GEJ473X	1/16W 47K	1	
R8686	ERJ2GEJ101X	1/16W 100	1	
R8701	ERJ2GEJ473X	1/16W 47K	1	
R8702	ERJ2GEJ473X	1/16W 47K	1	
R8705	ERJ2GEJ272X	1/16W 2.7K	1	
R8801	ERJ2GEJ222X	1/16W 2.2K	1	

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R8802	ERJ2GEJ222X	1/16W 2.2K	1	
R8803	ERJ2GEJ332X	1/16W 3.3K	1	
R8804	ERJ2GEJ222X	1/16W 2.2K	1	
R8805	ERJ2GEJ123X	1/16W 12K	1	
R8806	ERJ2GEJ123X	1/16W 12K	1	
R8807	ERJ2GEJ123X	1/16W 12K	1	
R8808	ERJ2GEJ123X	1/16W 12K	1	
R8816	ERJ3RED100V	1/16W 10	1	
R8817	ERJ3RED470V	1/16W 47	1	
R8818	ERJ3RED910V	1/16W 91	1	
R8819	ERJ3RBD101V	1/16W 100	1	
R8820	ERJ3RED910V	1/16W 91	1	
R8821	ERJ3RED820V	1/16W 82	1	
R8822	ERJ3RBD101V	1/16W 100	1	
R8823	ERJ3RBD101V	1/16W 100	1	
R8824	ERJ3RBD181V	1/16W 180	1	
R8825	ERJ3RBD151V	1/16W 150	1	
R8826	ERJ3RED390V	1/16W 39	1	
R8827	ERJ3RED100V	1/16W 10	1	
R8902	ERJ2GE0R00X	1/16W 0	1	
R8903	ERJ2GEJ682X	1/16W 6.8K	1	
R8904	ERJ3GEYJ392V	1/10W 3.9K	1	
R8906	ERJ2GEJ103X	1/16W 10K	1	
R8908	ERJ2GE0R00X	1/16W 0	1	
R8909	ERJ2GEJ103X	1/16W 10K	1	
R8910	ERJ2GEJ103X	1/16W 10K	1	
R8916	J0JBC0000036	COIL	1	
R8920	ERJ2GEJ222X	1/16W 2.2K	1	
R8921	ERJ2GEJ391X	1/16W 390	1	
R8923	ERJ2GEJ561X	1/16W 560	1	
R8924	ERJ3RBD561V	1/16W 560	1	
R8926	ERJ2GE0R00X	1/16W 0	1	
R8927	ERJ2GEJ221X	1/16W 220	1	
R8932	ERJ2GEJ332X	1/16W 3.3K	1	
R8933	ERJ2GEJ223X	1/16W 22K	1	
R8934	ERJ2GEJ223X	1/16W 22K	1	
R8935	ERJ2GEJ223X	1/16W 22K	1	
R8987	ERJ2GEJ682X	1/16W 6.8K	1	
R8988	ERJ2GEJ392X	1/16W 3.9K	1	
RX3001	D1H81034A024	RESISTOR-RESISTOR	1	
RX3002	D1H410320002	RESISTOR-RESISTOR	1	
RX3003	D1H447220001	RESISTOR-RESISTOR	1	
RX3006	D1H422020001	RESISTOR-RESISTOR	1	
RX3007	D1H81034A024	RESISTOR-RESISTOR	1	
RX3008	D1H81034A024	RESISTOR-RESISTOR	1	
RX3013	D1H84724A024	RESISTOR-RESISTOR	1	
RX4001	D1H81034A024	RESISTOR-RESISTOR	1	
RX6001	D1H81034A024	RESISTOR-RESISTOR	1	
RX6002	D1H81034A024	RESISTOR-RESISTOR	1	
S5201	ESE11MV9T	SWITCH	1	
S5202	ESE11MV9T	SWITCH	1	
S6005	ESE11MV9T	SWITCH	1	
S6801	K0H1BA000432	SWITCH	1	
S6802	K0H1BA000432	SWITCH	1	
S6803	K0H1BA000432	SWITCH	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
S6804	K0H1BA000432	SWITCH	1	
S6805	K0H1BA000432	SWITCH	1	
S6806	K0H1BA000432	SWITCH	1	
S6811	K0H1BA000432	SWITCH	1	
S6812	K0H1BA000432	SWITCH	1	
S6813	K0H1BA000432	SWITCH	1	
S6814	K0H1BA000432	SWITCH	1	
S6815	K0H1BA000432	SWITCH	1	
S6816	K0H1BA000432	SWITCH	1	
S6817	K0H1BA000432	SWITCH	1	
S6821	K0H1BA000432	SWITCH	1	
S6822	K0H1BA000432	SWITCH	1	
S6823	K0H1BA000432	SWITCH	1	
S6824	K0H1BA000432	SWITCH	1	
S6825	K0H1BA000432	SWITCH	1	
S6826	K0H1BA000432	SWITCH	1	
S6827	K0H1BA000432	SWITCH	1	
S6828	K0H1BA000432	SWITCH	1	
S6829	K0H1BA000432	SWITCH	1	
T1101	G5DYA0000055	TRANSFORMER	1	
TH6001	ERTJ0EG103FA	THERMISTER	1	
X3001	H0J270500080	CRYSTAL OSCILLATOR	1	
X6001	H2D800400017	CRYSTAL OSCILLATOR	1	

20. Schematic Diagram for printing with A4

Ref No.	QR1007				QR1008				QR1202				QR1402				QR1403			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	0	2.9	0		0	2.9	0.4		0	0	3.3		0	0	2.7		0	0	3.3	
STOP	0	2.9	0		0	2.9	0.4		0	0	3.3		0	0	2.7		0	0	3.3	

Ref No.	QR1411							QR1413				QR1602				QR1603			
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B	
PLAY	5.1	0.2	0.2	2.7	0	11.6		9.0	0	9.0		0	1.3	0		0	4.9	0	
STOP	5.1	0.2	0.1	2.7	0	11.5		9.0	0	9.0		0	1.3	0		0	4.9	0	

Ref No.	QR3201				QR3202				QR4001				QR4002				QR4004			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	4.9	-0.2	4.9		0	4.9	0.1		0	0	3.3		9.0	9.0	7.7		2.9	-0.1	2.8	
STOP	4.9	-0.1	4.9		0	4.9	0.1		0	0	3.3		9.0	9.0	7.7		2.6	2.5	0	

Ref No.	QR4005				QR4008															
MODE	E	C	B		E	C	B													
PLAY	2.9	-0.1	2.8		0	0	0.2													
STOP	2.6	2.4	0.5		0	0	0.2													

Ref No.	QR4009							QR4010				QR4011							
MODE	1	2	3	4	5	6		E	C	B		E	C	B					
PLAY	0	-1.3	0	0	-1.3	0		3.2	-0.1	3.1		0	0.1	3.1					
STOP	0	0.6	0	0	0.6	0		3.2	-0.1	3.1		0	0.1	3.1					

Ref No.	QR4014				QR4015				QR4016				QR4017				QR4018			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	0	-1.0	0		0	2.8	0		0	2.8	0		0	2.2	0		0	0	2.7	
STOP	0	-0.6	0		0	0	0		0	0	4.5		0	2.0	0		0	0	2.7	

Ref No.	QR4702							QR4703							QR5221				
MODE	1	2	3	4	5	6		1	2	3	4	5	6		E	C	B		
PLAY	0	-1.3	0	0	-5.2	0		0	-1.6	0	0	-5.2	0		3.2	3.2	0.1		
STOP	0	0.7	0	0	0.7	0		0	0.7	0	0	0.7	0		3.2	-0.1	3.2		

Ref No.	QR6001				QR6002				QR6003											
MODE	E	C	B		E	C	B		E	C	B									
PLAY	0	0.1	3.3		0	3.3	0		0	3.3	0									
STOP	0	0.1	3.3		0	3.3	0		0	3.3	0									

Ref No.	IC3204																			
MODE	1	2	3	4	5	6	7	8												
PLAY	1.4	2.7	0	1.6	1.7	3.3	3.3	0												
STOP	1.4	2.8	0	1.6	1.7	3.3	3.3	0												

Ref No.	IC3205																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	0	0	0	3.3	3.3	3.3	0	0	0	3.3	0	0	3.3	3.3						
STOP	0	0	0	3.3	3.3	3.3	0	0	0	3.3	0	0	3.3	3.3						

Ref No.	IC4001						IC4002													
MODE	1	2	3	4	5		1	2	3	4	5									
PLAY	5.4	0	5.4	0	5.0		5.4	0	3.3	0	5.0									
STOP	5.4	0	5.4	0	5.0		5.4	0	3.3	0	5.0									

Ref No.	IC4003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	0	3.2	2.8	3.2	1.6	0.8	1.6	1.6	0	0	5.0	0	2.5	2.4	2.5	0				
STOP	0	3.2	2.8	3.2	1.6	0	1.6	1.6	0	0	5.0	0	2.5	2.4	2.5	5.0				

Ref No.	IC4004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	2.5	2.5	2.5	2.5	0	0	0	0	0.1	0	2.5	2.4	2.4	0	2.5	5.0				
STOP	2.5	2.5	2.5	2.5	0	0	0	0	0.1	0	2.5	2.4	2.4	0	2.5	5.0				

Ref No.	IC4005									IC4006										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
PLAY	4.2	4.2	4.2	0	4.2	4.2	4.2	8.3		2.2	4.2	4.2	2.2	4.0	0	8.3	4.1			
STOP	4.2	4.2	4.2	0	4.2	4.2	4.2	8.3		1.9	4.2	4.2	1.9	4.0	0	8.3	3.9			

Ref No.	IC4008																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	0	3.2	3.2	0	3.2	0.5	0	1.6	1.6	0	1.6	1.6	0	1.6	3.2	1.6	1.6	1.6	0
STOP	0	0	3.2	3.2	0	3.2	0.1	0	1.6	1.6	0	1.6	1.6	0	1.6	3.2	1.6	1.6	1.6	0

Ref No.	IC4008									IC4009										
MODE	21	22	23	24	25	26	27	28		1	2	3	4	5	6	7	8			
PLAY	0	1.4	0	1.6	1.6	1.6	3.2	1.6		2.5	2.5	2.5	0	4.2	4.2	4.2	8.3			
STOP	0	1.4	0	1.6	1.6	1.6	3.2	1.6		2.5	2.5	2.5	0	4.2	4.2	4.2	8.3			

Ref No.	IC4101							
MODE	1	2	3	4	5	6	7	8
PLAY	1.4	2.7	0	1.6	1.7	3.3	3.3	0
STOP	1.4	2.8	0	1.6	1.7	3.3	3.3	0

Ref No.	IC4701																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0.6	0.6	0.6	0.6	0.7	0.6	0	0.6	1.2	0.3	0.3	0.6	0.6	3.2	1.2	3.2	0	0	0	0
STOP	0.6	0.6	0.6	0.6	0.7	0.6	0	0.6	1.2	0.2	0.2	0.6	0.6	3.2	1.2	3.2	0	0	0	0

Ref No.	IC4701					IC5201									IC6001					
MODE	21	22	23	24		1	2	3	4	5	6	7	8		1	2	3	4		
PLAY	0.6	0.6	0.6	0.6		0	0	0	0	3.2	0	0.2	3.2		3.3	1.8	0	0		
STOP	0.6	0.6	0.6	0.6		0	0	0	0	0	0	0	3.2		3.3	1.9	0	0		

Ref No.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	3.3	0.3	2.9	3.3	3.3	3.3	0	3.3	3.3	3.3	1.7	1.5	0	0	3.3	0	3.3	0	0
STOP	0	3.3	0.2	2.9	3.3	3.3	3.3	0	3.3	3.3	3.3	1.7	1.5	0	0	3.3	0	3.3	0	0

Ref No.	IC6002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0	0.1	0.1	0	0.3	0.7	3.3	3.3	0	0	3.2	3.3	3.3	2.9	0	0	0	0	3.0	2.6
STOP	0	0	0	0	0.2	0.7	3.3	3.3	0	0	3.2	3.3	3.3	2.9	0	0	0	0	3.0	2.7

Ref No.	IC6002																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	2.9	3.3	3.3	3.3	0.1	3.3	2.7	3.3	3.3	0	0	3.3	3.3	0	3.3	3.3	0.4	0	0	0
STOP	2.9	3.3	3.3	3.3	0.1	3.3	2.7	3.3	3.3	0	0	3.3	3.3	0	3.3	3.3	0.3	0	0	0

Ref No.	IC6002																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	3.3	0	0	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0	3.3	3.3
STOP	3.3	0	0	0	3.3	3.3	3.3	3.3	3.3	0	3.3	3.3	3.3	0	3.3	0	0	0	3.3	3.3

Ref No.	IC6003						IC6007													
MODE	1	2	3	4	5		1	2	3	4										
PLAY	0.7	0.7	0	0.6	3.2		3.3	3.3	0.2	0										
STOP	0.7	0.7	0	0.6	3.2		3.3	3.3	0	0										

Ref No.	Q1001							Q1002							Q1003					
MODE	1	2	3	4	5	6		1	2	3	4	5	6		1	2	3	4	5	6
PLAY	1.2	1.2	8.2	9.0	1.2	1.2		2.6	2.6	6.2	9.0	2.5	2.5		5.6	5.6	3.3	9.0	5.6	5.6
STOP	1.2	1.2	8.1	9.0	1.2	1.2		2.5	2.5	6.2	9.0	2.5	2.5		5.5	5.5	3.3	9.0	5.5	5.5

Ref No.	Q1004							Q1101				Q1201				Q1202				
MODE	1	2	3	4	5	6		E	C	B		S	D	G		S	D	G		
PLAY	3.7	3.7	9.0	9.0	3.7	3.7		0	10.6	0.2		1.1	1.2	3.3		3.2	3.2	0		
STOP	3.7	3.7	9.0	9.0	3.7	3.7		0	11.0	0.2		1.1	1.2	3.3		3.2	3.2	0		

Ref No.	Q1401							Q1403								Q3201				
MODE	1	2	3	4	5	6		1	2	3	4	5	6	7	8	E	C	B		
PLAY	3.7	3.7	9.9	11.0	3.7	3.7		11.8	11.8	11.8	8.0	8.9	8.9	8.9	8.9	1.6	0	1.0		
STOP	4.0	4.0	8.9	10.8	4.0	4.0		11.8	11.8	11.8	8.0	8.9	8.9	8.9	8.9	1.6	0	1.0		

Ref No.	Q3202				Q3203				Q3204				Q4001				Q4002			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	0	0.6	-0.1		1.3	4.9	1.4		1.6	0	1.0		8.3	9.0	9.0		0	3.1	0	
STOP	0	0.9	0.4		1.0	4.9	1.4		1.6	0	1.0		8.3	9.0	9.0		0	3.1	0	

Ref No.	Q5201				Q5202				Q5211				Q5215							
MODE	E	C	B		E	C	B		E	C	B		E	C	B					
PLAY	0.4	3.8	1.0		0	5.0	0		4.4	2.2	3.8		5.0	0.1	5.0					
STOP	0	5.0	0		0	5.0	0		5.0	0.7	5.0		5.0	0	5.0					

Ref No.	IC3004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	0	3.2	0	0	0	0	3.2	0	0	0	0	0	0	0	0	3.2	1.9	1.6	0
STOP	0	0	3.2	0	0	0	0	3.2	0	0	0	0	0	0	0	0	3.2	3.2	3.2	0.5
Ref No.	IC3004																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0	1.1	1.1	0.9	0.8	0.8	1.1	1.4	1.4	1.2	1.3	1.2	1.2	0	3.2	1.1	1.1	1.2	1.3	1.3
STOP	0	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0	3.2	1.1	0.8	1.1	1.0	0.8
Ref No.	IC3004																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	1.3	1.2	0.9	0	1.1	0.8	1.2	1.7	1.6	1.1	1.1	0	3.2	0.5	3.2	0.8	0.9	1.3	1.7	1.3
STOP	0.9	0.5	1.0	0	1.1	0.3	1.5	1.8	0.8	1.3	1.3	0	3.2	0.8	3.2	1.4	1.3	1.1	1.7	1.2
Ref No.	IC3004																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	1.9	1.4	1.4	1.8	0	3.2	3.2	0	3.2	0	0	3.0	3.0	2.6	2.9	3.2	3.2	2.8	0	0
STOP	2.0	1.3	1.5	2.1	0	3.2	3.2	0	3.2	0	0	3.0	3.0	3.2	3.2	3.2	3.2	2.8	0	3.2
Ref No.	IC3004																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
PLAY	0.1	0	1.1	3.1	1.9	3.2	3.2	3.2	3.2	1.4	1.6	0	3.2	3.2	3.2	3.2	3.2	0	3.2	3.2
STOP	3.2	0	1.1	3.2	3.2	0	0	0	3.2	1.6	1.6	0	3.2	3.2	3.2	3.2	3.2	0	3.2	3.2
Ref No.	IC3004																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
PLAY	3.2	3.2	0.9	0	2.2	1.7	0	0	1.7	3.2	0.3	0.3	1.8	1.8	1.6	1.6	1.6	1.6	3.2	1.8
STOP	3.2	3.2	0.9	0	2.2	1.7	0	0	1.7	3.2	0.2	0.2	0	1.8	1.6	1.6	1.6	1.6	3.2	3.2
Ref No.	IC3004																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
PLAY	1.3	0	0.2	1.0	0.2	0	2.2	1.6	2.6	2.7	2.7	2.6	2.7	2.6	2.4	2.5	2.4	2.5	1.8	1.6
STOP	1.3	0	0	0	0	0	0.3	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.6
Ref No.	IC3004																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
PLAY	1.5	1.6	0	1.6	1.4	3.2	0.8	0.8	0.5	3.2	2.1	1.0	1.0	2.1	0	0.5	0.6	3.2	0	3.2
STOP	1.6	1.6	0	1.6	1.6	3.2	0.8	0.8	0.4	3.2	2.1	1.0	1.0	2.1	0	0.4	0.8	3.2	0	3.2
Ref No.	IC3004																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
PLAY	0.5	1.5	1.5	0	1.1	1.6	1.6	1.6	0.8	0	0	0.8	1.3	0	3.2	0	0	0	0	0
STOP	0	1.5	0	0	1.1	1.4	1.6	1.6	0	0	0	0.5	1.3	0	3.2	0	0	0	0	0
Ref No.	IC3004																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
PLAY	0	0	0	3.2	0	0	3.2	3.2	0	0	0	0	0	0	0	0	3.2	2.0	2.4	2.7
STOP	0	0	0	3.2	0	0	3.2	3.2	0	0	0	0	0	0	0	0	3.2	2.9	2.7	2.8
Ref No.	IC3004																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
PLAY	2.5	2.6	2.5	3.2	0	2.6	2.3	2.4	2.3	2.4	2.3	2.4	2.6	3.2	0	2.4	2.4	1.0	1.9	1.9
STOP	3.0	2.9	3.2	3.2	0	3.0	2.9	2.9	3.1	2.9	3.0	3.2	2.9	3.2	0	2.7	2.8	1.1	2.6	2.6
Ref No.	IC3004																			
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
PLAY	3.1	0	1.5	3.2	1.5	0	3.0	3.0	2.8	0	1.5	0	0	1.1	1.6	0	0	0	3.2	1.5
STOP	3.1	0	1.5	3.2	1.5	0	3.1	3.1	3.0	0	2.0	0	0	1.1	1.5	0	0	0	3.2	1.4
Ref No.	IC3004																	IC3007		
MODE	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256		1	2	3
PLAY	0.2	1.7	0.3	1.7	0.4	1.3	1.7	0	3.2	0	0	0	0	0	0	0		0	3.1	3.2
STOP	0	1.5	0	1.5	0	1.2	1.3	0	3.2	0	0	0	0	0	0	0		0	3.1	3.1
Ref No.	IC3009																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	3.2	2.5	3.2	2.4	2.4	0	2.4	2.3	3.2	2.3	2.5	0	2.4	3.2	2.0	3.1	3.0	3.0	2.8	1.6
STOP	3.2	2.7	3.2	3.0	3.0	0	2.9	3.1	3.2	3.0	2.9	0	2.8	3.2	2.6	3.1	3.1	3.1	3.0	1.9
Ref No.	IC3009																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	1.6	0	0.3	0.4	0.4	1.8	3.2	0	1.3	1.7	1.7	1.5	0	0	0	0	3.2	1.5	1.9	0
STOP	1.5	0	0	0.1	0.1	1.3	3.2	0	1.5	1.5	1.5	1.4	0	0	0	0	3.2	1.5	2.6	0
Ref No.	IC3009																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
PLAY	0	2.4	3.2	2.4	2.5	0	2.5	2.7	3.2	2.7	2.8	0	2.3	0						
STOP	0	2.8	3.2	3.0	2.9	0	2.9	3.0	3.2	2.9	2.8	0	2.9	0						
Ref No.	IC3201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	4.9	0	0	0	0	0.2	0	0.5	2.2	0	1.6	0	2.1	3.3	2.1	4.9	2.2	2.2	0	2.2
STOP	4.9	0	0	0	0	0.1	0	0.5	2.1	0	1.5	0	2.1	3.3	2.1	4.9	2.2	2.2	0	2.2
Ref No.	IC3201																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32								
PLAY	2.2	0	1.6	1.6	0	4.5	0	0	4.4	0	0	-0.2								
STOP	2.2	0	1.3	1.3	0	4.4	0	0	4.4	4.4	0	-0.3								
Ref No.	IC3202																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	1.6	1.6	0	0	3.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STOP	0	1.6	1.6	0	0	3.3	0	0	0	0	0	0	2.3	0	0	0	0	0	0	0
Ref No.	IC3202																			
MODE	21	22	23	24																
PLAY	3.3	2.9	3.3	3.3																
STOP	3.3	2.9	3.2	3.3																
Ref No.	IC3203																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	-0.2	0.2	-0.2	-0.2	0.2	0	0	0	0.1	0	1.6	0.5	0.5	0	1.6	4.9				
STOP	-0.2	0.1	-0.2	0.1	0.1	0	0	0	0.1	0	1.6	0.4	0.4	0	1.6	4.9				

Ref No.	IC1001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0.3	9.0	9.0	8.2	0	0	6.1	9.0	3.3	0	0	0.1	2.3	1.8	1.1	1.3	1.0	1.0	2.1	1.1
STOP	0.8	9.0	9.0	8.2	0	0	6.2	9.0	3.4	0	0	0.1	2.3	1.8	1.1	1.3	1.0	1.0	2.1	1.1
Ref No.	IC1001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	1.5	1.0	1.0	1.4	1.1	1.9	1.0	1.7	0	0	0	9.0	2.5	1.0	1.0	1.3	1.1	1.8	0.5	0
STOP	1.5	1.0	1.0	1.4	1.1	1.9	1.0	1.7	0	0	0	9.0	2.5	1.0	1.0	1.3	1.1	1.8	0.2	0
Ref No.	IC1001																			
MODE	41	42	43	44	45	46	47	48												
PLAY	0.5	1.0	0	0	3.3	3.3	3.3	0												
STOP	0.2	1.0	0	0	3.3	3.3	3.3	0												
Ref No.	IC1003							IC1004						IC1101						
MODE	1	2	3	4	5	6		1	2	3	4	5		1	2	3	4	5		
PLAY	3.3	0	1.3	5.0	0	5.4		5.4	0	5.4	0	5.0		5.4	0	3.3	0	5.0		
STOP	3.3	0	1.3	5.0	0	5.4		5.4	0	5.4	0	5.0		5.4	0	3.3	0.6	5.0		
Ref No.	IC1251																			
MODE	1	2	3	4	5															
PLAY	5.4	0	0	0	0															
STOP	5.4	0	0	0	0															
Ref No.	IC1401									IC1402										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
PLAY	8.9	0	0	1.2	11.7	0	8.0	11.8		8.9	0	0	1.2	11.7	0	8.0	11.8			
STOP	8.7	0	0	1.2	11.7	0	8.0	11.8		8.9	0	0	1.2	11.7	0	8.0	11.8			
Ref No.	IC1411						IC1412													
MODE	1	2	3	4	5		1	2	3	4										
PLAY	11.3	0	3.3	9.9	11.0		3.3	8.9	-0.1	0										
STOP	11.1	0	3.3	8.9	10.8		3.3	9.0	0	0										
Ref No.	IC1601																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	1.3	0.9	5.0	9.3	4.5	0.3	1.0	1.0	0.5	0.9	4.5	0.3	5.6	5.6	0	8.9				
STOP	1.3	0.9	5.0	9.3	4.5	0.2	1.0	1.0	0.7	0.7	4.5	0.2	5.4	5.3	0	8.9				
Ref No.	IC2601																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1.6	1.6	1.5	1.6	1.6	1.6	0	5.4	3.2	0	3.1	2.4	2.7	2.8	2.4	2.4	2.4	2.4	0	0
STOP	1.6	1.6	1.6	1.6	1.6	1.6	0	5.4	0	0	2.7	2.7	2.7	2.7	2.4	2.4	2.4	2.4	0	0
Ref No.	IC2601																			
MODE	21	22	23	24	25	26	27	28												
PLAY	5.4	5.4	1.6	1.6	1.6	1.6	3.2	2.8												
STOP	5.4	5.4	1.6	1.6	1.6	1.6	0	2.8												
Ref No.	IC2651																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	0	0	0	0	0	3.5	0	0	2.9	2.9	0	0	2.9	0.8	0	0.6	0	2.4	0
STOP	0	0.1	0.1	0.1	0	0.1	0.1	0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0	0	0	5.0	5.0
Ref No.	IC2651																			
MODE	21	22	23	24	25	26	27	28												
PLAY	1.6	1.4	3.2	2.5	5.0	0	5.4	5.4												
STOP	1.6	1.6	0	5.0	5.0	0	5.4	5.4												
Ref No.	IC3001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1.2	0	3.2	0	3.2	0	0	0	0	0	3.2	3.1	3.2	3.2	0.3	0.9	0.9	1.2	1.7	1.3
STOP	0.5	1.1	0.3	1.5	1.8	0.9	1.3	1.2	0.8	0	3.2	3.1	3.2	3.2	0.3	1.4	1.3	1.1	1.7	1.2
Ref No.	IC3001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	1.9	1.3	1.4	1.7	1.9	1.6	0	1.5	1.0	0.9	0.8	0.9	1.1	1.4	1.4	1.3	3.2	1.3	1.1	1.1
STOP	2.1	1.3	1.5	2.1	0.5	1.4	0	2.5	1.1	0.5	0.5	-1.2	0.9	-0.5	1.5	0.8	3.2	-0.1	0.9	1.3
Ref No.	IC3001									IC3002										
MODE	41	42	43	44	45	46	47	48		1	2	3	4	5	6	7	8			
PLAY	1.1	1.1	1.2	1.3	1.3	0	3.2	1.4		0	0	0	0	3.2	3.2	0	3.2			
STOP	1.1	0.8	1.1	1.1	0.9	0	3.2	0.9		0	0	0	0	3.2	3.2	0	3.2			

Ref No.	IC8501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	-8.2	-8.2	-8.2	-0.1	-8.2	-8.2	-15.6	-23.0	-3.2	-3.4	-24.0	-15.6	-15.6	-8.3						
STOP	-8.2	-8.2	-8.2	0	-8.2	-8.2	-15.6	-22.7	-3.1	-3.4	-23.4	-15.6	-15.6	-8.8						

Ref No.	IC8502								IC8601									
MODE	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8		
PLAY	2.1	4.1	1.9	-	0.1	4.9	4.9	4.9	1.7	2.5	0.3	0.7	1.6	3.1	3.0	0.8		
STOP	2.1	4.1	1.9	-	0.1	4.9	4.9	4.9	1.4	2.5	0.3	0.6	1.6	3.0	3.0	0.8		

Ref No.	IC8603								IC8701									
MODE	1	2	3	4	5	6	7	8	1	2	3	4	5	6				
PLAY	1.7	4.9	1.7	4.9	2.2	4.9	1.5	0.1	2.5	0	0	3.0	0	3.7				
STOP	1.7	4.9	1.7	4.9	2.0	4.9	1.2	0	2.5	0	0	3.0	0	3.7				

Ref No.	IC8702						IC8801											
MODE	1	2	3	4	5	6	1	2	3	4	5	6	7	8				
PLAY	2.5	0	0	3.0	0	3.7	2.0	2.0	1.5	0.1	2.0	1.5	2.0	4.9				
STOP	2.5	0	0	3.0	0	3.7	2.0	2.0	1.5	0.1	2.0	1.5	2.0	4.9				

Ref No.	IC8903																	
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
PLAY	2.5	0.1	3.2	2.1	4.9	4.7	4.9	1.9	2.0	0.1	3.1	3.1	1.0	1.1	1.7	1.8		
STOP	2.4	0.1	3.2	2.1	4.9	4.7	4.9	1.9	2.0	0.1	3.1	3.1	1.0	1.1	1.7	1.8		

Ref No.	Q8001				Q8002				Q8003				Q8004				Q8005			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	1.5	0	1.8		0.9	3.0	1.5		1.5	0	1.8		0.9	3.0	1.5		0.3	0.9	3.0	
STOP	1.5	0	1.8		0.9	3.0	1.5		1.5	0	1.8		0.9	3.0	1.5		0.3	3.0	0.9	

Ref No.	Q8403				Q8601				Q8606				Q8608				Q8609			
MODE	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
PLAY	0.1	3.0	0.1		13.5	13.5	0		1.8	0.1	1.7		1.8	0.1	1.7		1.8	0.1	1.7	
STOP	0.1	3.0	0.1		13.5	13.5	0		1.8	0	1.7		1.8	0.1	1.7		1.8	0.1	1.7	

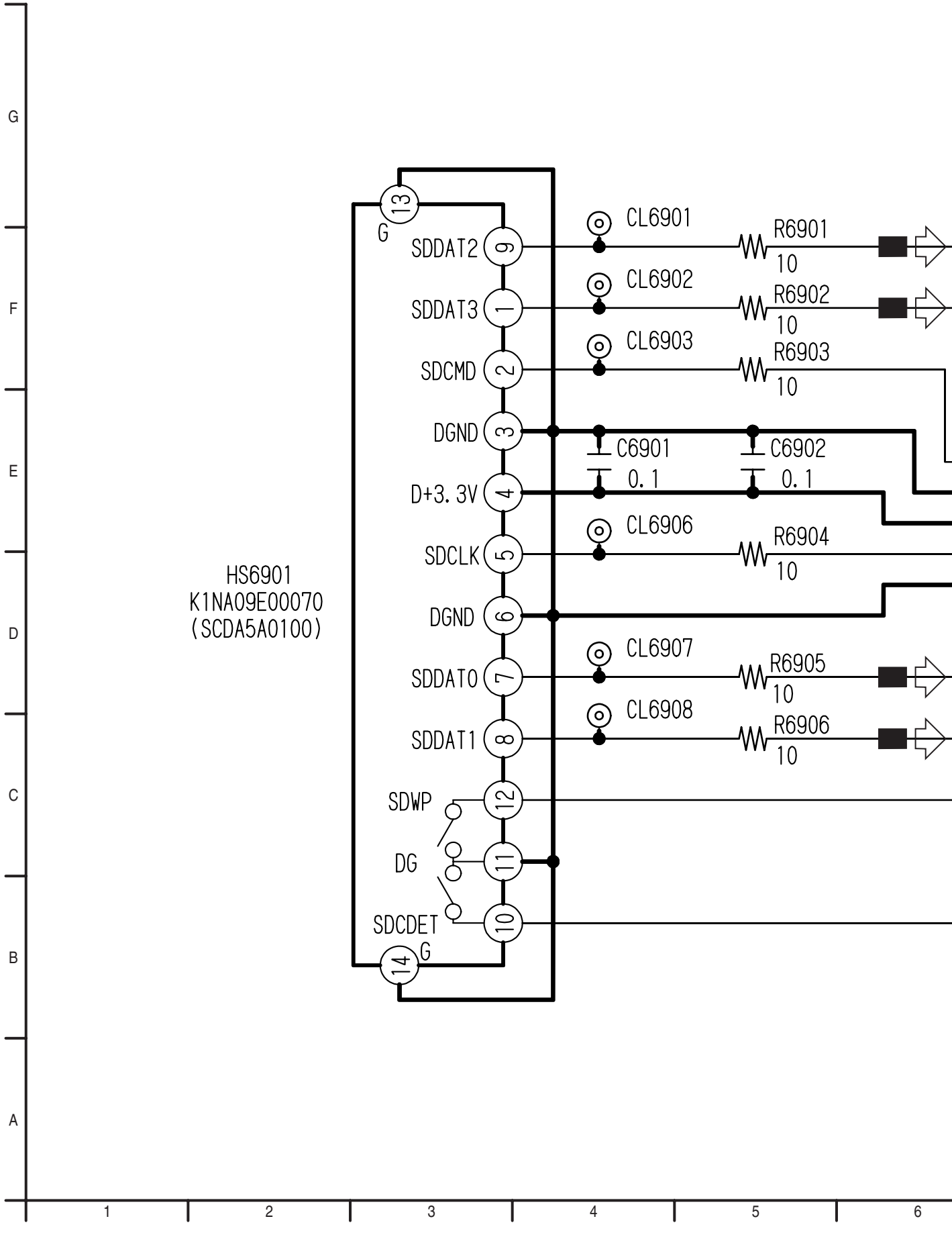
Ref No.	Q8614				Q8618				Q8801											
MODE	E	C	B		E	C	B		1	2	3	4	5	6						
PLAY	0.8	0	1.5		1.5	0	1.5		0.1	-1.0	2.5	4.9	5.7	2.5						
STOP	0.5	0	1.2		1.2	0	1.2		0.1	-1.0	2.5	4.9	5.7	2.5						

Ref No.	Q8802							QR8602				QR8603				QR8604			
MODE	1	2	3	4	5	6		E	C	B		E	C	B		E	C	B	
PLAY	0.1	-1.0	2.5	4.9	5.7	2.5		0	0	3.3		2.5	3.0	0		0	0	3.3	
STOP	0	-1.0	2.5	4.9	5.7	2.5		0	0	3.3		2.5	3.0	0		0	0	3.3	

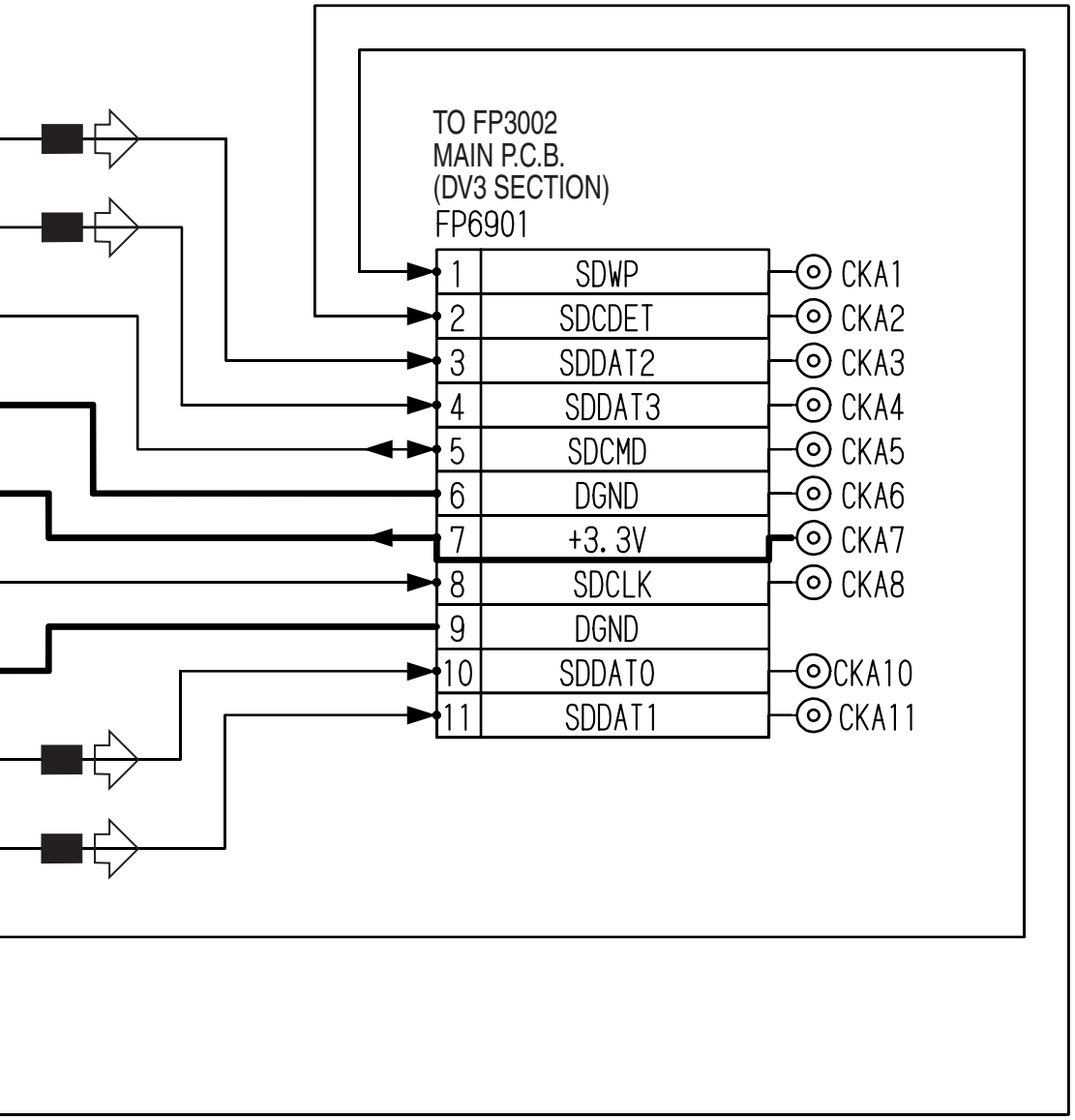
Ref No.	QR8605				QR8606				QR8607											
MODE	E	C	B		E	C	B		E	C	B									
PLAY	-24.0	-24.0	3.0		4.9	4.9	0.1		0.1	0.1	2.3									
STOP	-24.0	-24.0	3.0		4.9	4.9	0.1		0.1	0.1	2.3									

Ref No.	IC8001																			
MODE	1	2	3	4	5	6	7	8												
PLAY	2.5	2.5	2.5	0.1	0.1	0.1	0.1	4.9												
STOP	2.5	2.5	2.5	0.1	0.1	0	0	4.9												
Ref No.	IC8002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0.1	0.1	2.9	2.9	3.0	1.8	0.1	0.1	0.1	1.8	2.9	0.1	3.0	3.0	-	3.0	1.3	1.3	-	-
STOP	0.1	0.1	2.9	2.9	3.0	1.8	0	0	0	1.8	2.9	0.1	3.0	3.0	-	3.0	1.3	1.3	-	-
Ref No.	IC8002																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	0.4	0.9	0.4	-	-	-	0.8	0.1	0.1	0.1	0.1	0.1	0.1	1.0	-	-	-	0.4	0.9	0.4
STOP	0.4	0.9	0.4	-	-	-	0.9	0	0.1	0	0.1	0.1	0	0.9	-	-	-	0.4	0.9	0.4
Ref No.	IC8002																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	-	-	1.3	1.4	3.0	-	3.0	2.9	0.1	2.9	1.8	3.0	2.4	0.1	1.8	0.1	0.1	0.1	0.1	0.1
STOP	-	-	1.3	1.3	3.0	-	3.0	2.9	0.1	2.9	1.8	3.0	2.3	0	1.8	0.1	0.1	0.1	0.1	0.1
Ref No.	IC8002																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	2.9	0.1	0.1	0.1	0.1	2.9	0.1	0.1	0.1	0.1	3.0	0.1	0.1	0.1	0.1	0.1	2.9	0.1	-	2.9
STOP	2.9	0.1	0.1	0.1	0.1	2.9	0.1	0.1	0.1	0.1	3.0	0	0	0	0	0	2.9	0.1	-	2.9
Ref No.	IC8002																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
PLAY	3.0	1.3	3.0	1.3	-	-	-	0.4	-	0.4	0.8	0.3	-	0.1	-	0.4	0.6	3.0	3.0	2.9
STOP	3.0	1.3	3.0	1.3	-	-	-	0.4	-	0.4	0.5	0.3	-	0.1	-	0	0.1	3.0	3.0	1.6
Ref No.	IC8002																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
PLAY	1.5	0.1	1.2	0.1	2.9	2.9	0.1	1.8	0.8	-	0.1	0.3	2.9	2.7	0.2	1.5	3.0	-	2.5	2.9
STOP	1.5	0	1.2	0.1	2.9	2.9	0.1	1.8	0.8	-	0.1	0.3	2.9	2.8	0.2	1.5	3.0	-	2.5	2.9
Ref No.	IC8002																			
MODE	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
PLAY	0.1	0.1	0.1	1.4	2.9	0.4	0.1	0.1	0.5	0.1	2.7	0.3	0.1	1.5	0.1	0.1	0.1	0.1	0.1	2.9
STOP	0.1	0.1	0.1	1.4	2.9	0.3	0.1	0.1	0.4	0.1	2.6	0.3	0.1	1.5	0.1	0.1	0.1	0.1	0.1	2.9
Ref No.	IC8002																			
MODE	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
PLAY	1.3	2.7	1.6	2.9	0.9	0.1	0.8	0.9	0.7	0.7	0.7	0.1	0.1	0.1	0.8	0.4	0.6	0.6	0.6	2.9
STOP	1.3	2.6	1.4	2.9	0.1	0.1	0	0.1	0.3	0.6	0.6	0.1	0	0.1	0.1	0.1	0.1	0.2	0.5	2.9
Ref No.	IC8002																			
MODE	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
PLAY	0.1	0.6	0.1	0.1	1.1	0.7	0.1	0.5	0.6	0.6	0.6	0.1	0.1	0.1	1.2	0.3	0.1	-	0.1	0.1
STOP	0.1	0.5	0.1	0.1	0.1	0.5	0.1	0.4	0.5	0.7	0.6	0.1	0.1	0.1	1.4	0.3	0.1	-	0.1	0.1
Ref No.	IC8002																			
MODE	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
PLAY	2.9	0.9	0.2	0.2	0.1	1.5	2.9	2.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
STOP	2.9	1.0	0.1	0.2	0.1	1.5	2.9	2.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ref No.	IC8002																			
MODE	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
PLAY	2.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.9
STOP	2.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.1
Ref No.	IC8002																			
MODE	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
PLAY	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4	0.1	3.1	3.1	0.1	0.1	0.1	0.1	0.1	0.1	3.1
STOP	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4	0.1	3.1	3.1	0.1	0.1	0.1	0.1	0.1	0.1	3.1
Ref No.	IC8003																			
MODE	1	2	3	4	5															
PLAY	0.1	0.1	0.1	0.1	2.9															
STOP	0.1	0.1	0.1	0.1	2.9															
Ref No.	IC8004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	2.9	0.1	2.7	2.9	0.1	2.9	0.1	1.5	1.5	2.9	2.9	1.5	3.1	3.1						
STOP	3.1	0.1	3.1	3.1	0.1	3.1	0.1	3.1	0.1	3.1	3.1	0.1	3.1	3.1						
Ref No.	IC8005															IC8006				
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14		1	2	3	4	5
PLAY	0.1	0.1	0.1	0.1	1.5	1.5	0.1	0.1	0.1	0.1	0.1	1.5	1.5	2.9		-	0.4	0.1	2.7	2.9
STOP	0.1	0.1	0.1	0.1	1.5	1.5	0.1	0.1	0.1	0.1	0.1	1.5	1.5	2.9		-	0.3	0.1	2.7	2.9
Ref No.	IC8007																			
MODE	1	2	3	4	5	6	7	8												
PLAY	2.5	0.3	0.9	0	1.2	0.9	0.9	3.0												
STOP	2.5	0.3	0.9	0	1.2	0.9	0.9	3.0												
Ref No.	IC8101																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	2.3	2.3	2.3	2.4	2.6	2.6	4.9	-0.1	0	2.3	2.3	2.3	2.3	2.3						
STOP	2.4	2.4	2.3	2.4	2.6	2.6	4.9	-0.1	2.4	2.4	2.4	2.3	2.3	2.4						
Ref No.	IC8101																			
MODE	21	22	23	24																
PLAY	0.1	0.1	4.9	-																
STOP	0.1	0.1	4.9	-																
Ref No.	IC8203																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	2.9	2.9	4.8	2.8	2.8	4.6	0.1	4.9	2.9	2.9	1.4	1.2	1.0	4.9						
STOP	2.9	2.9	4.9	2.8	2.8	4.7	0.1	4.9	2.9	2.9	1.5	1.1	1.0	4.9						
Ref No.	IC8204																			
MODE	1	2	3	4	5	6	7	8												
PLAY	0.1	0.1	0.1	0.1	4.9	4.9	0.1	4.9												
STOP	0.1	0.1	0.1	0.1	4.9	4.9	0.1	4.9												

16.8. SD CARD SCHEMATIC DIAGRAM



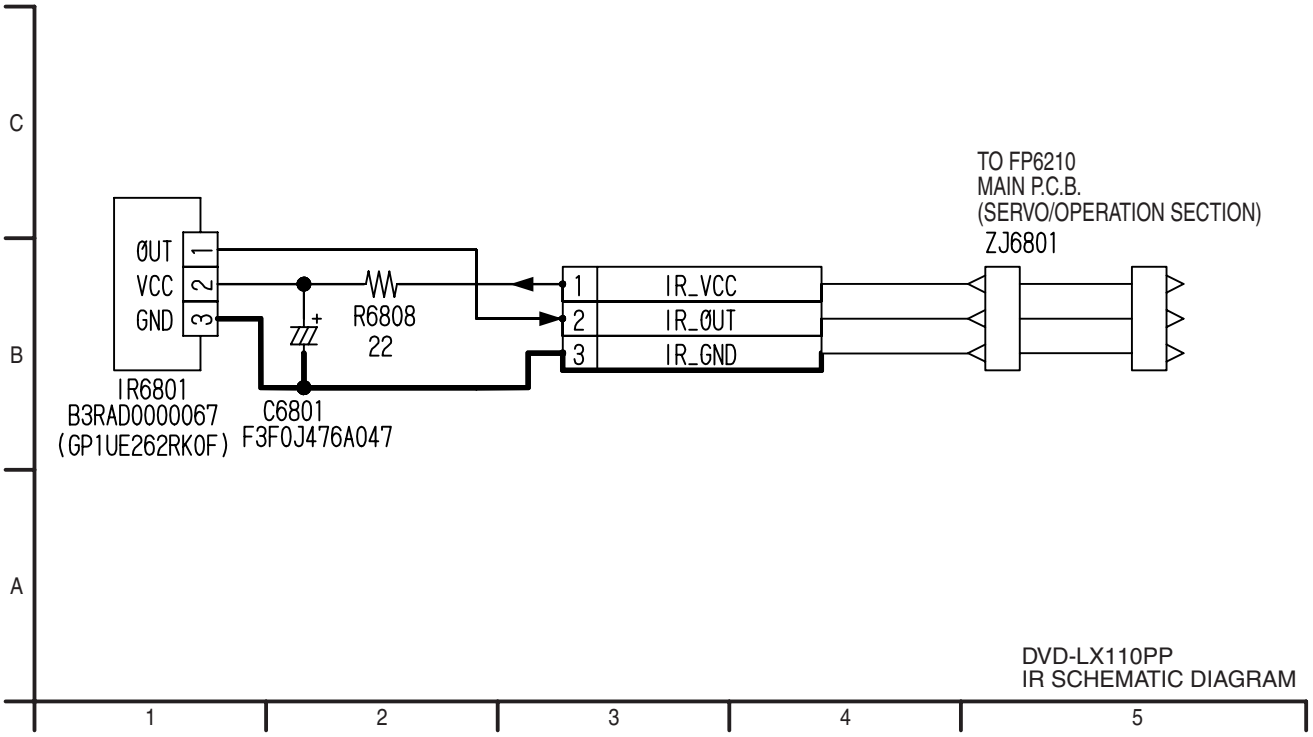
SD SIGNAL

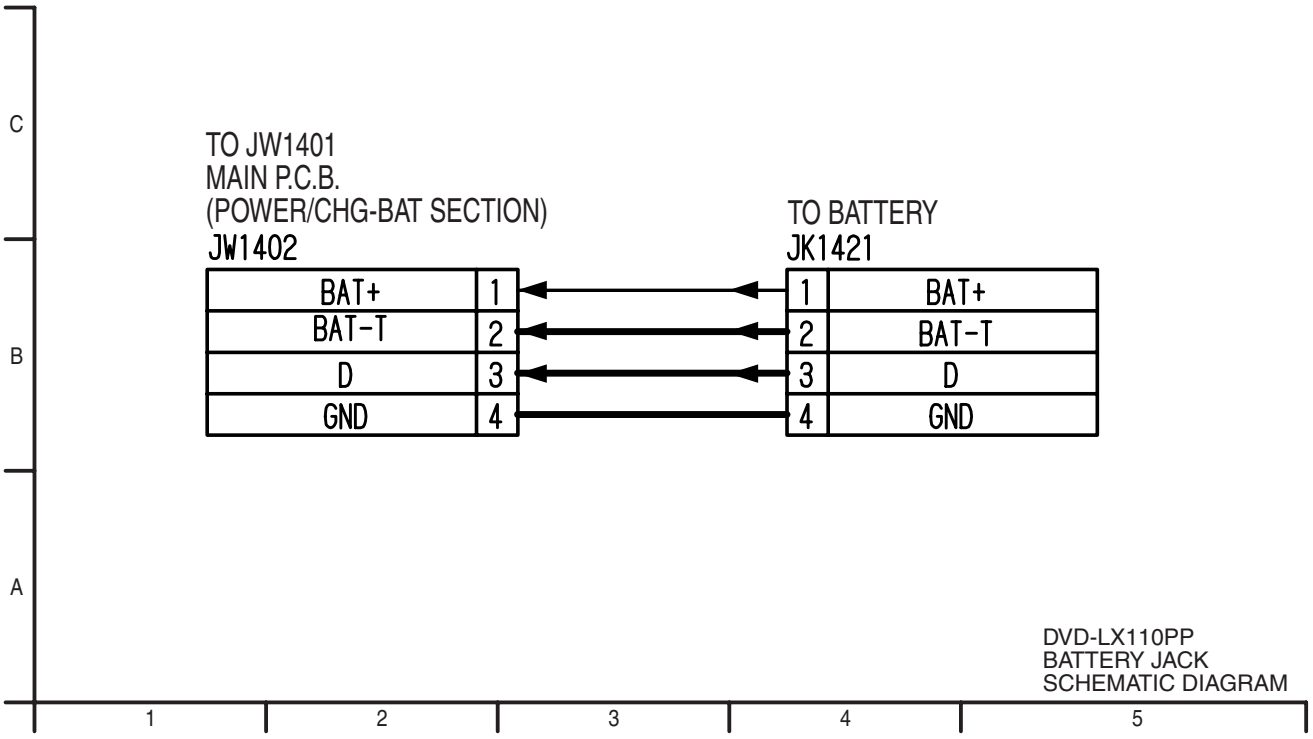


DVD-LX110PP
SD CARD
SCHEMATIC DIAGRAM

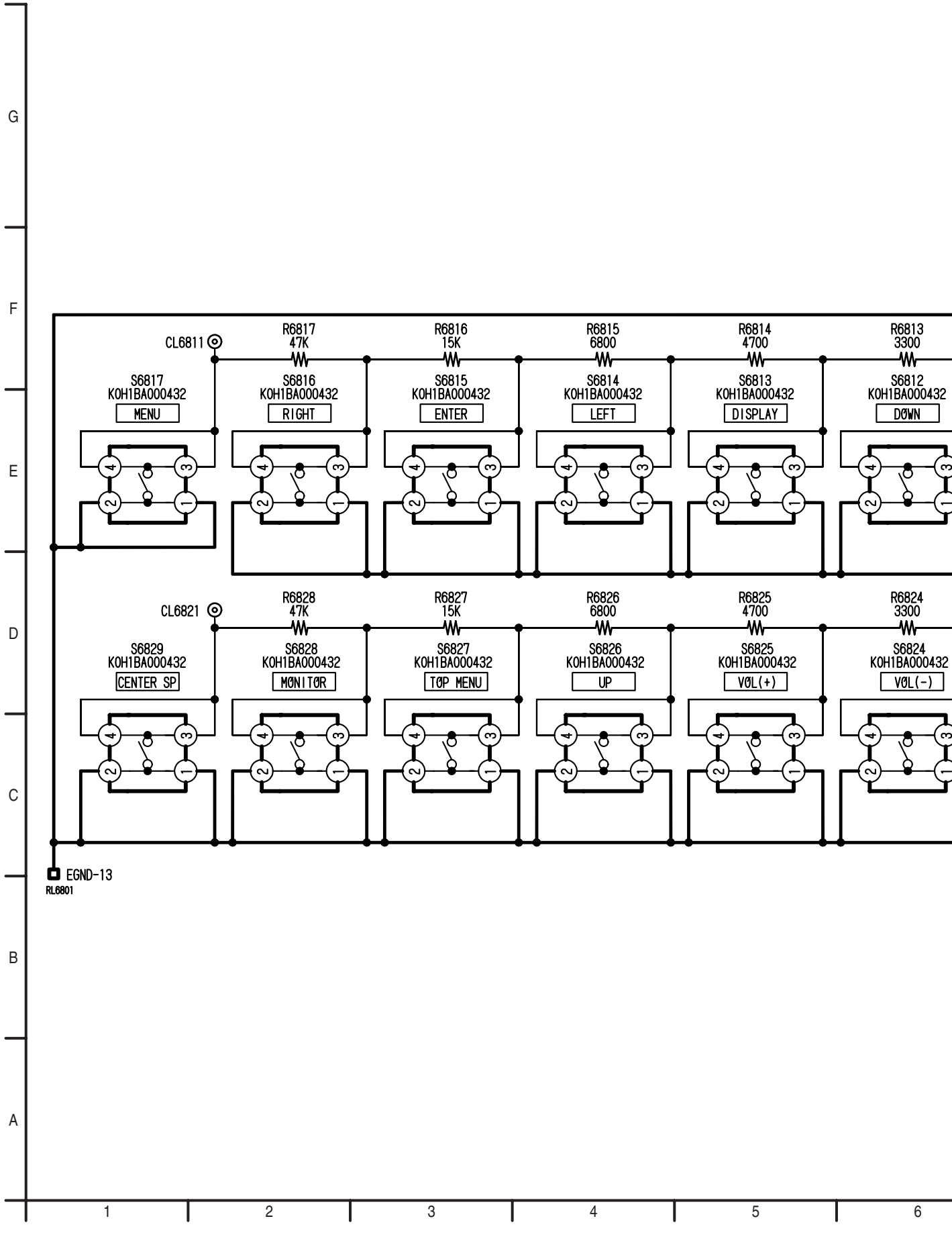
6 | 7 | 8 | 9 | 10 | 11

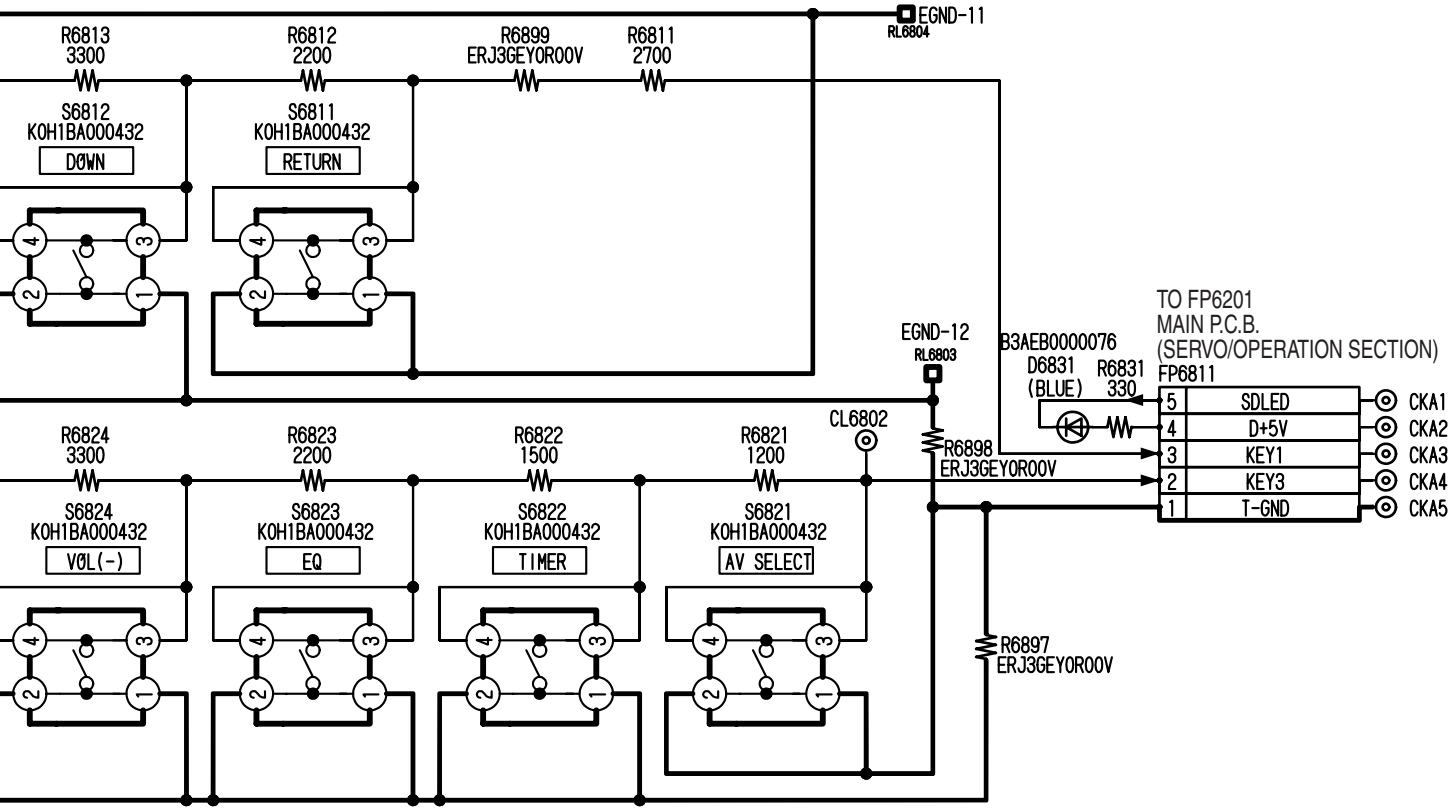
16.9. IR & BATTERY JACK SCHEMATIC DIAGRAM





16.6. SIDE SW SCHEMATIC DIAGRAM

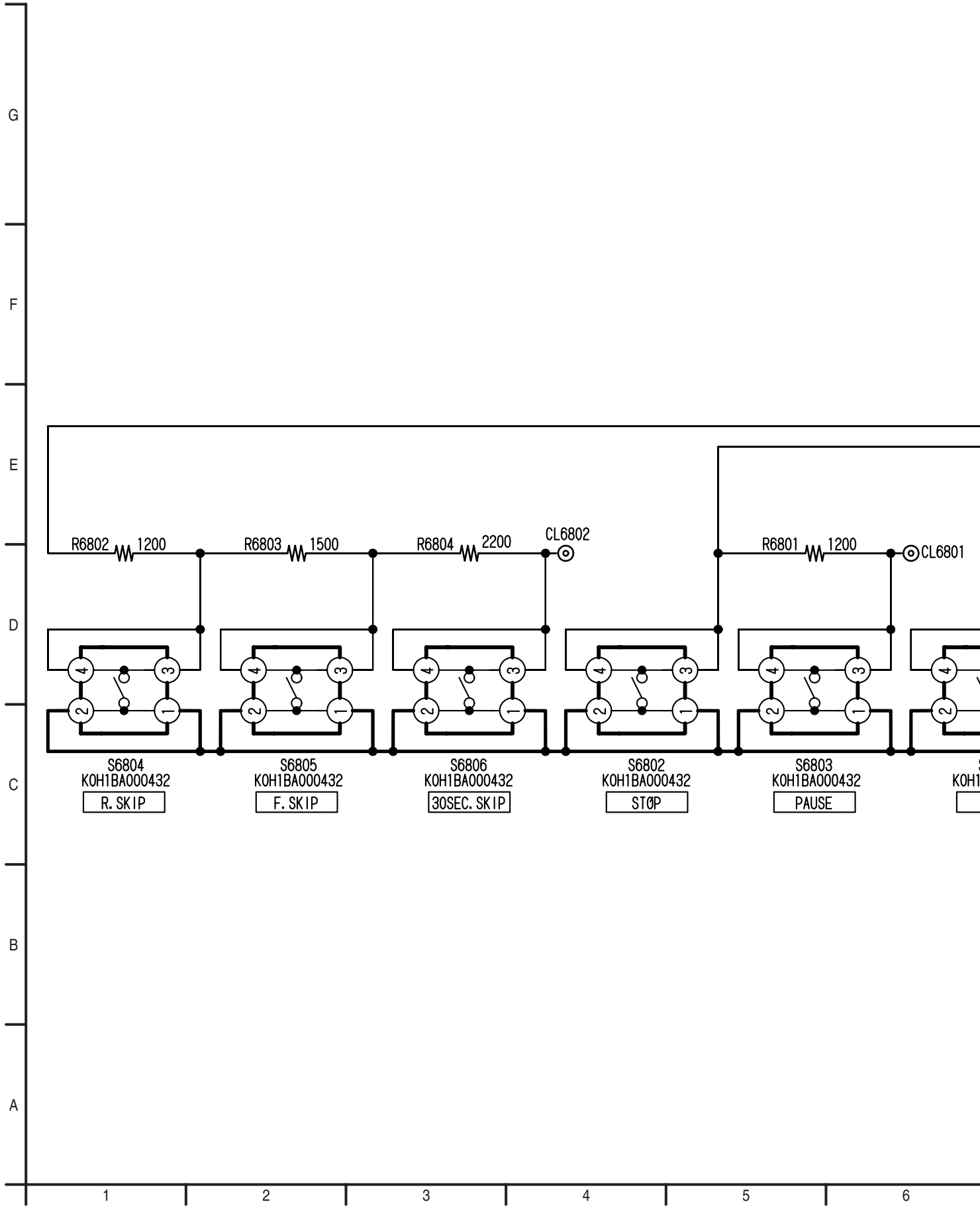


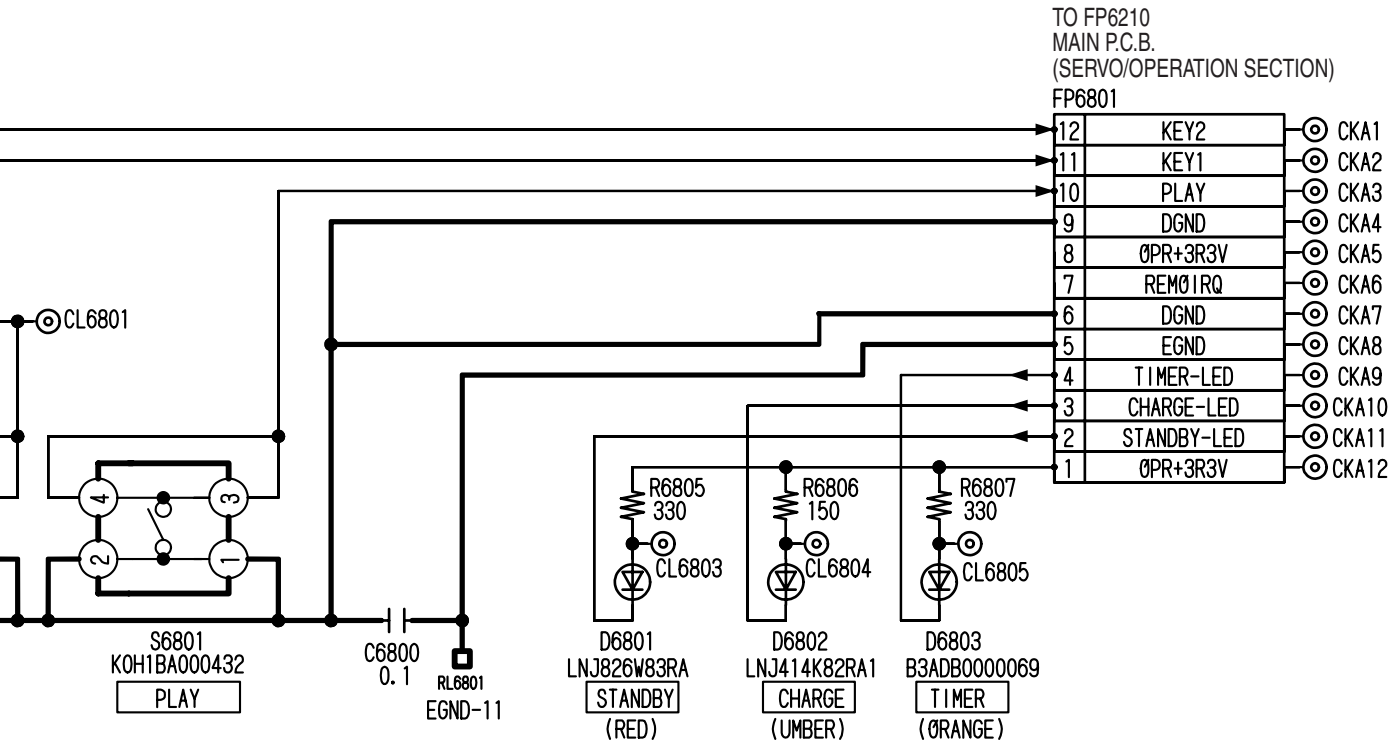


DVD-LX110PP
SIDE SWITCH
SCHEMATIC DIAGRAM

6 | 7 | 8 | 9 | 10 | 11

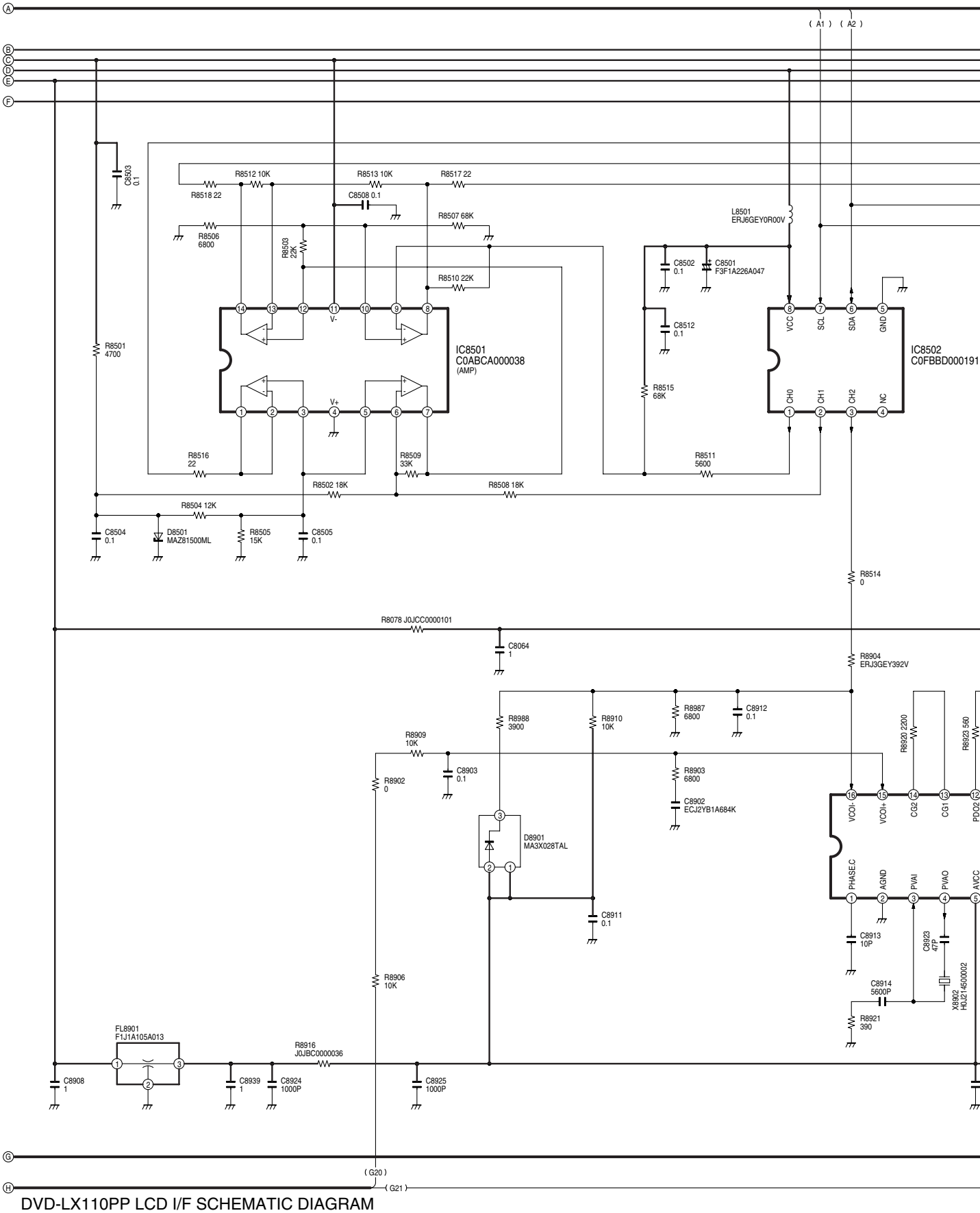
16.7. FRONT SW SCHEMATIC DIAGRAM





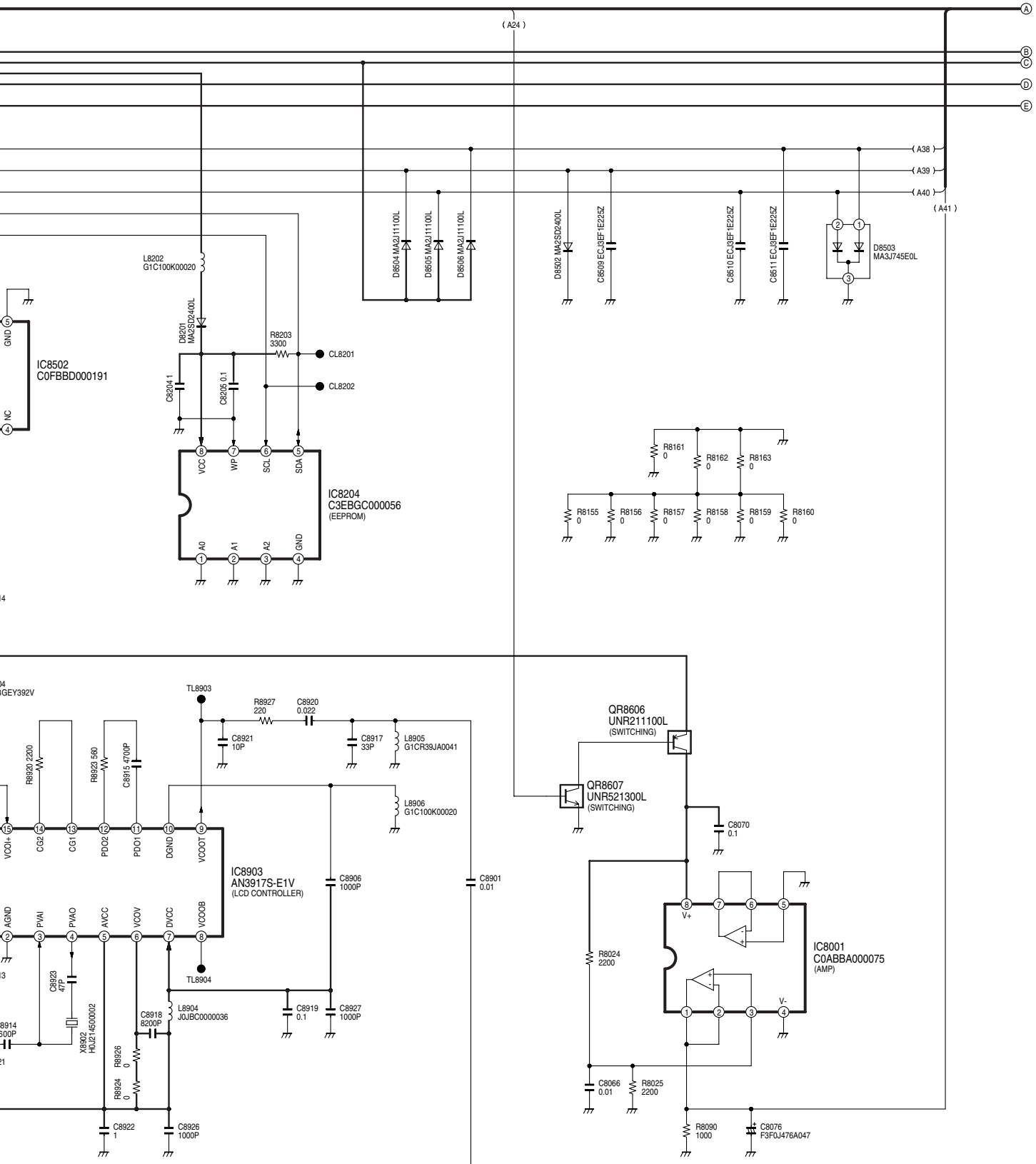
DVD-LX110PP
FRONT SWITCH
SCHEMATIC DIAGRAM

6 | 7 | 8 | 9 | 10 | 11



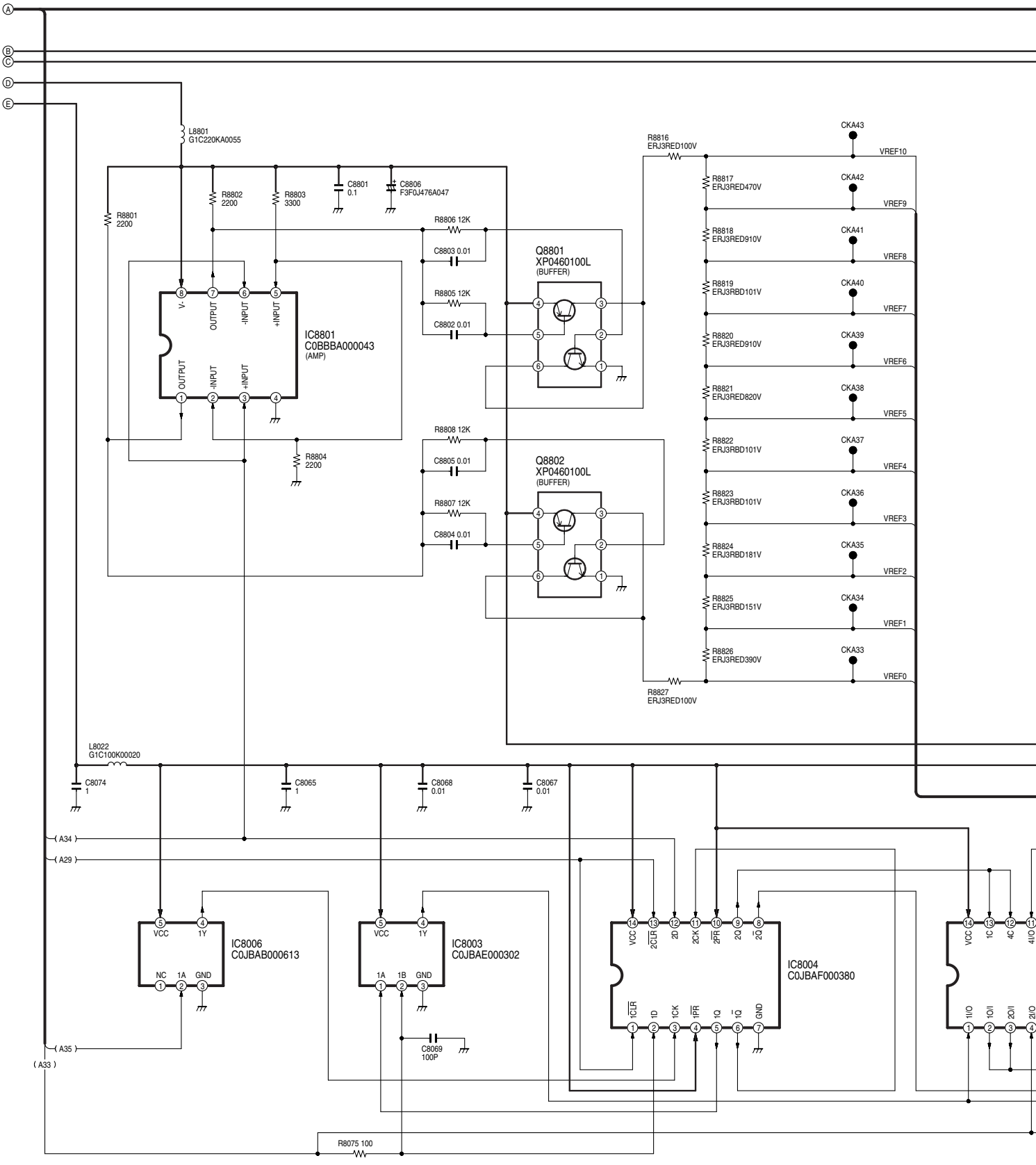
DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM

23 | 24 | 25 | 26 | 27 | 28



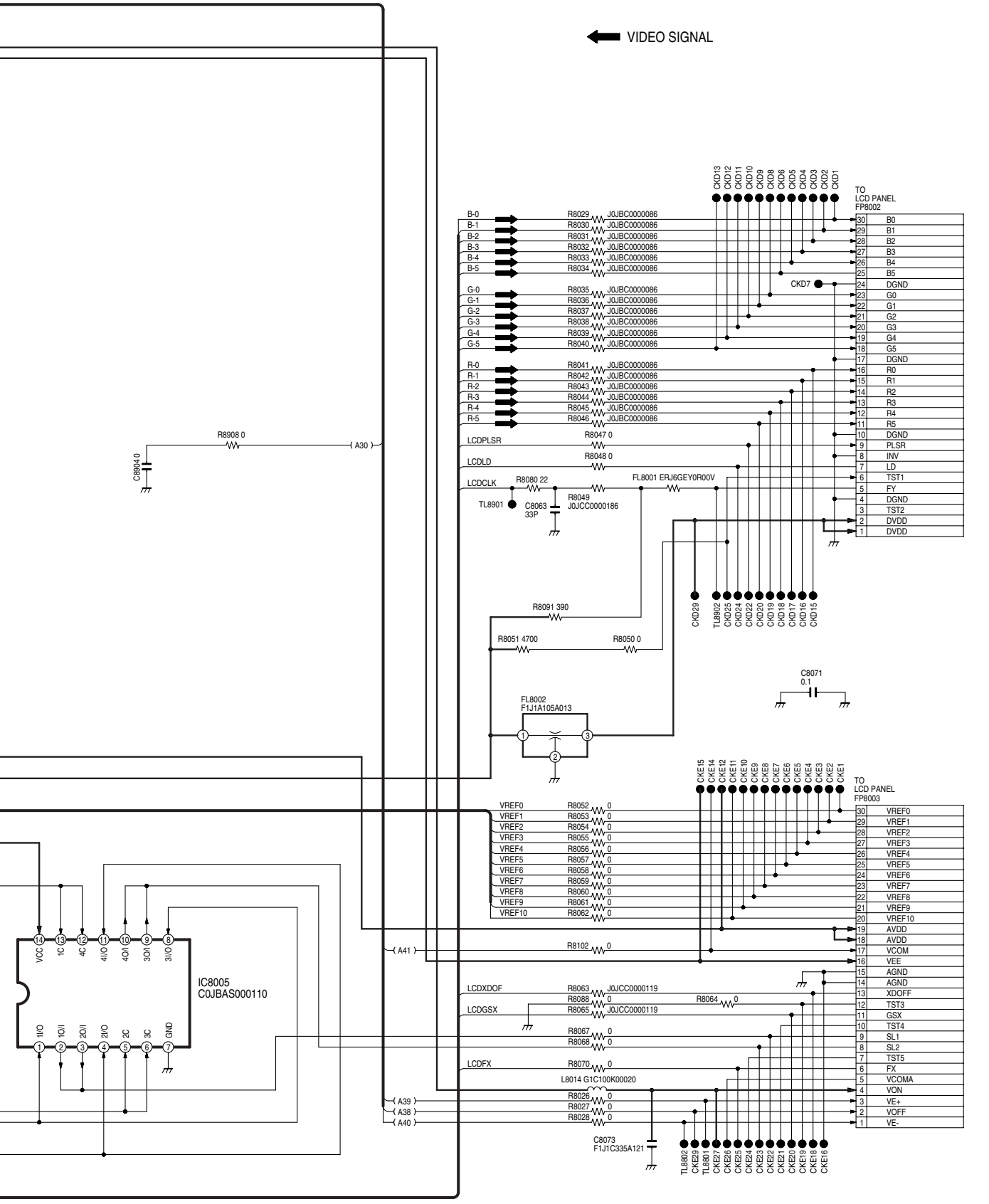
DVD-LX110PP
LCD I/F SCHEMATIC DIAGRAM

28 | 29 | 30 | 31 | 32 | 33



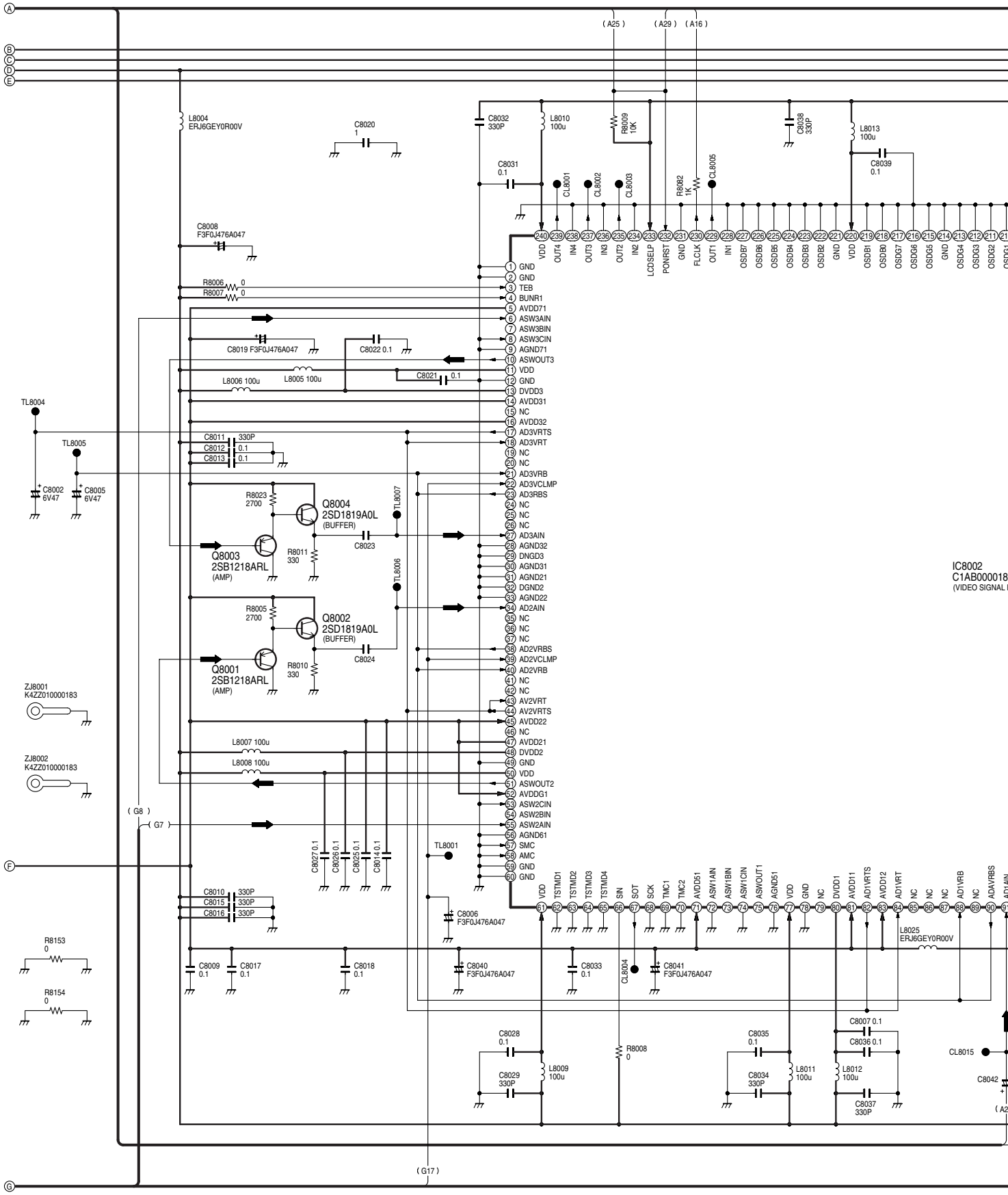
DVD-LX110PP
LCD I/F SCHEMATIC DIAGRAM

34 | 35 | 36 | 37 | 38 | 39



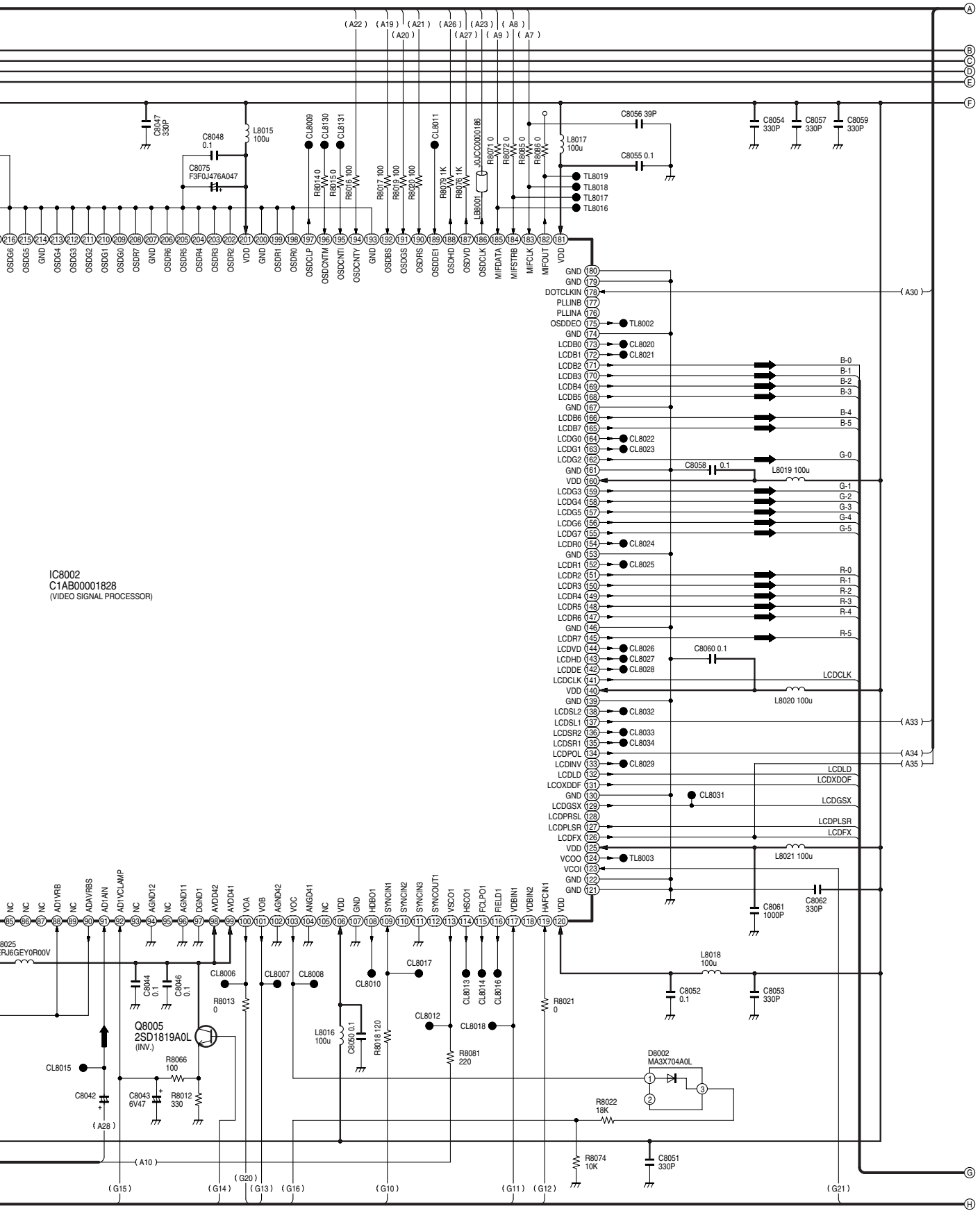
DVD-LX110PP
LCD I/F SCHEMATIC DIAGRAM

39 40 41 42 43 44



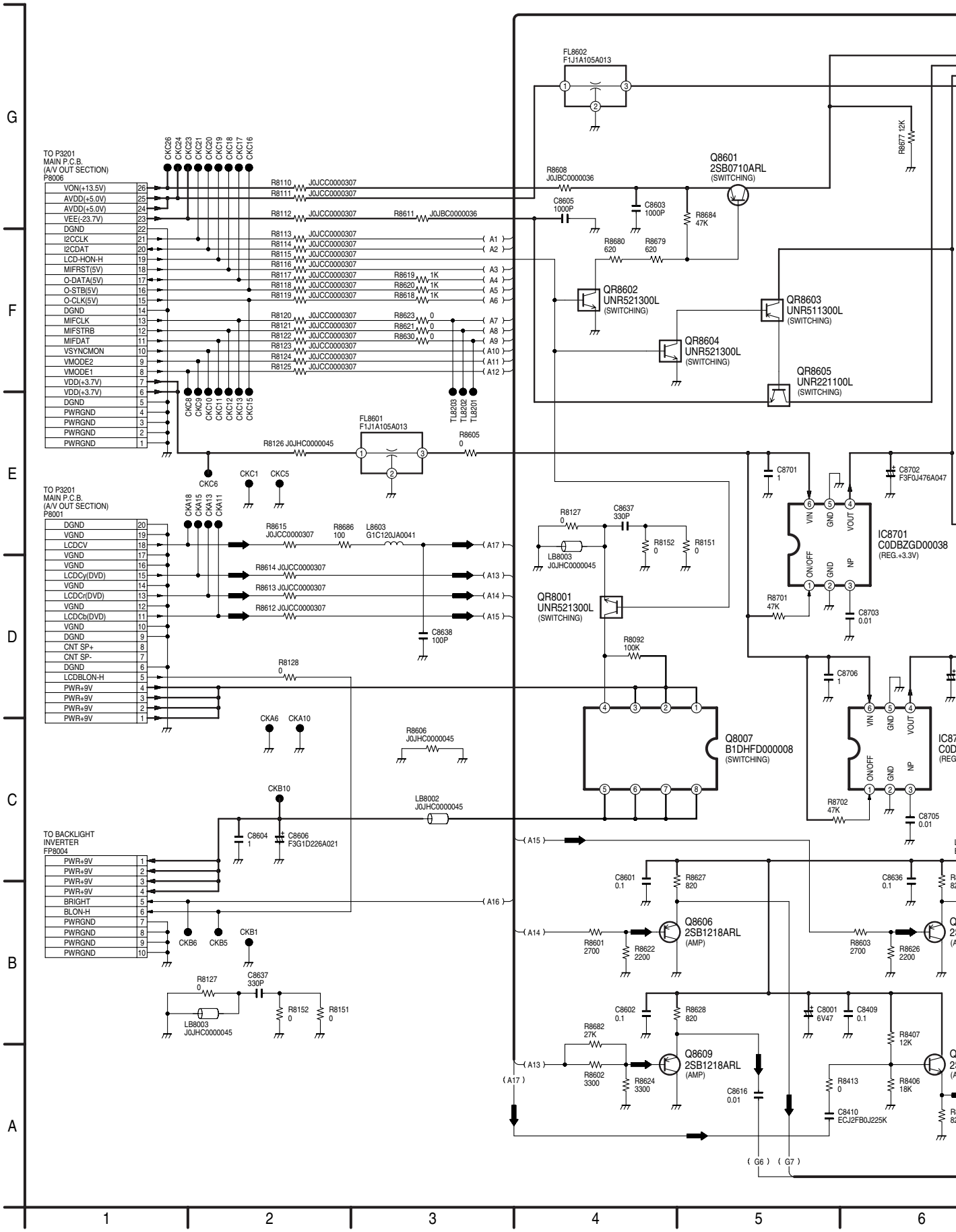
DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM

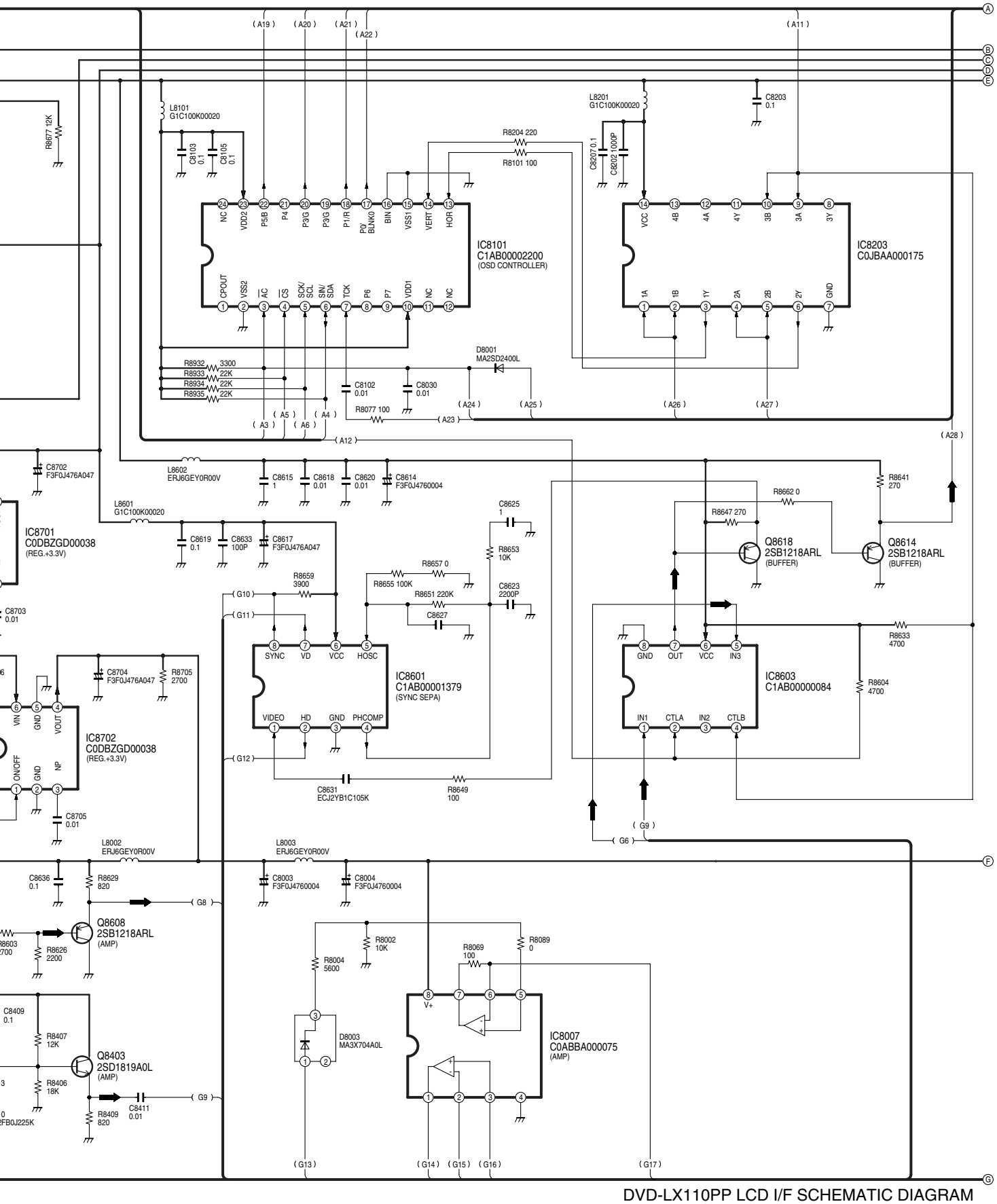
12 | 13 | 14 | 15 | 16 | 17



DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM

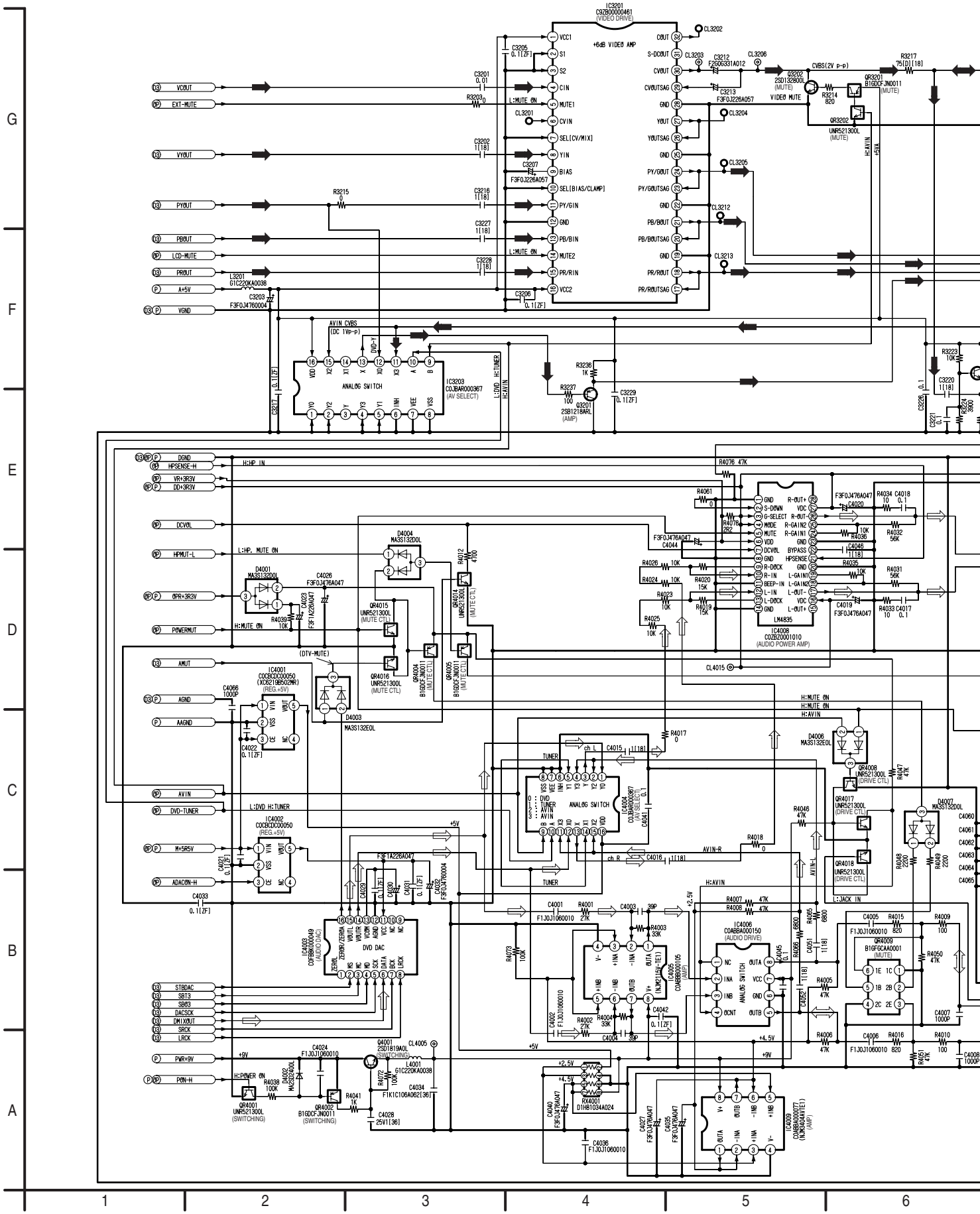
16.5. LCD IF SCHEMATIC DIAGRAM



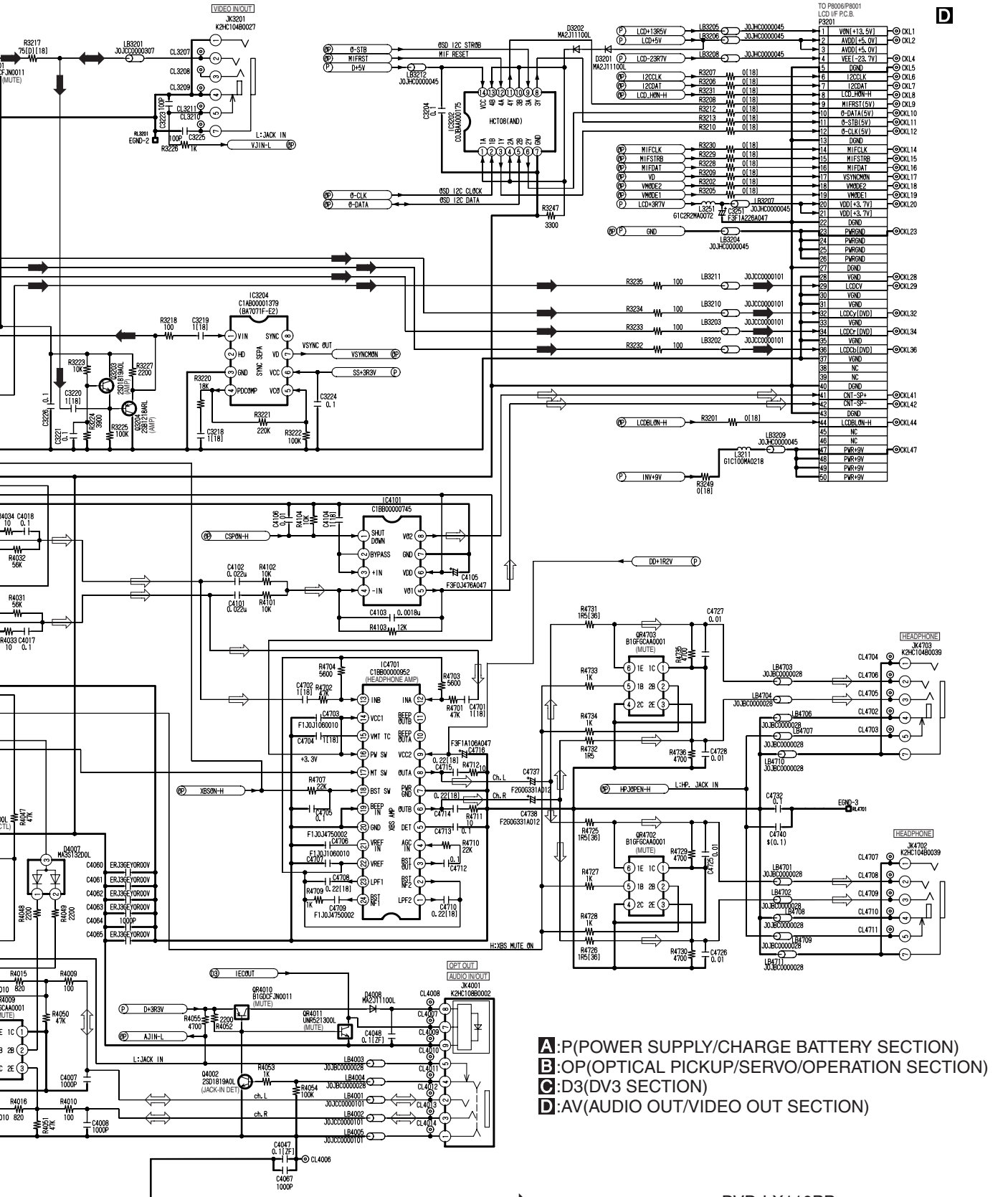


DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM

16.4. AUDIO OUT/VIDEO OUT SECTION (MAIN P.C.B. (4/4)) SCHEMATIC DIAGRAM



AGRAM

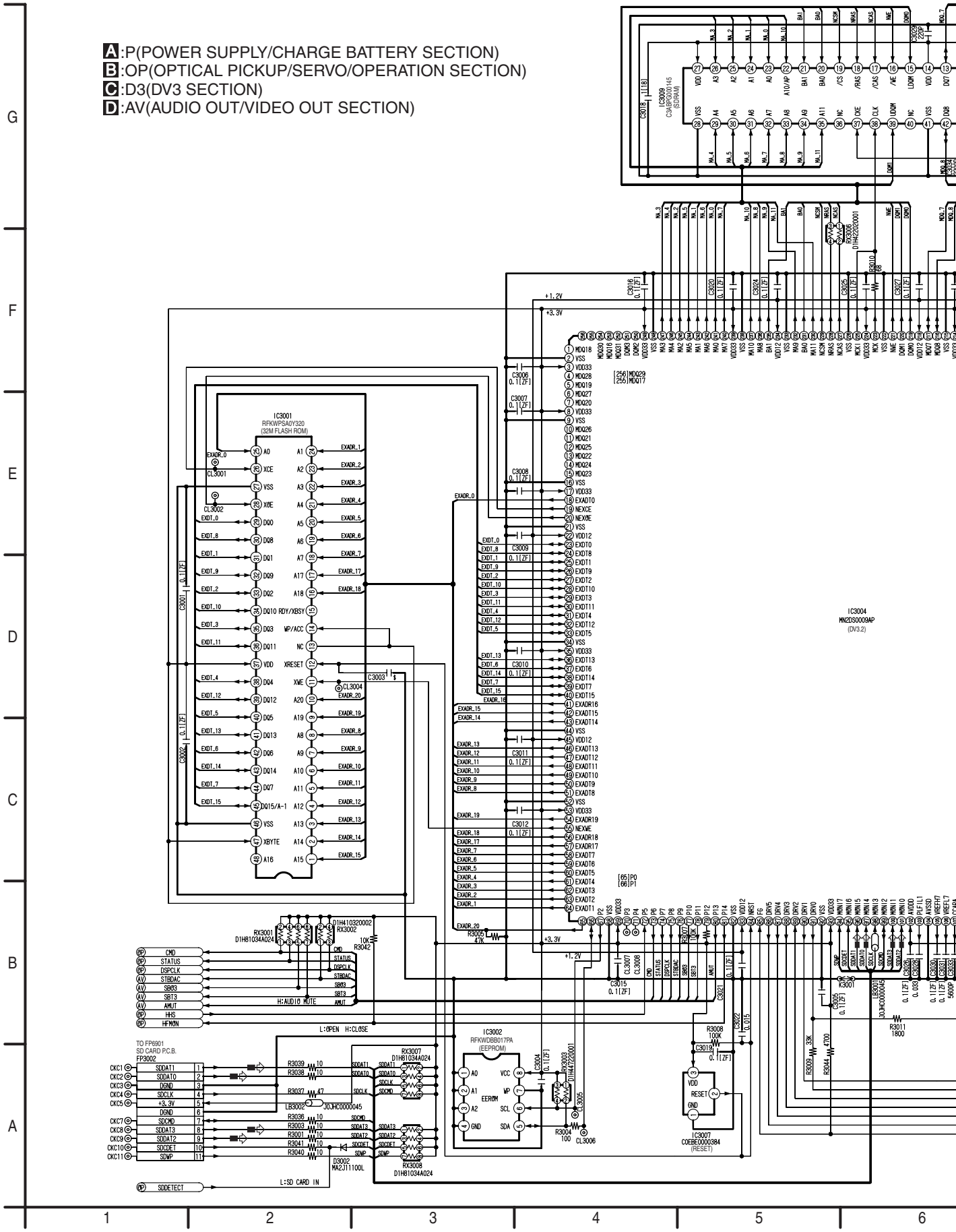


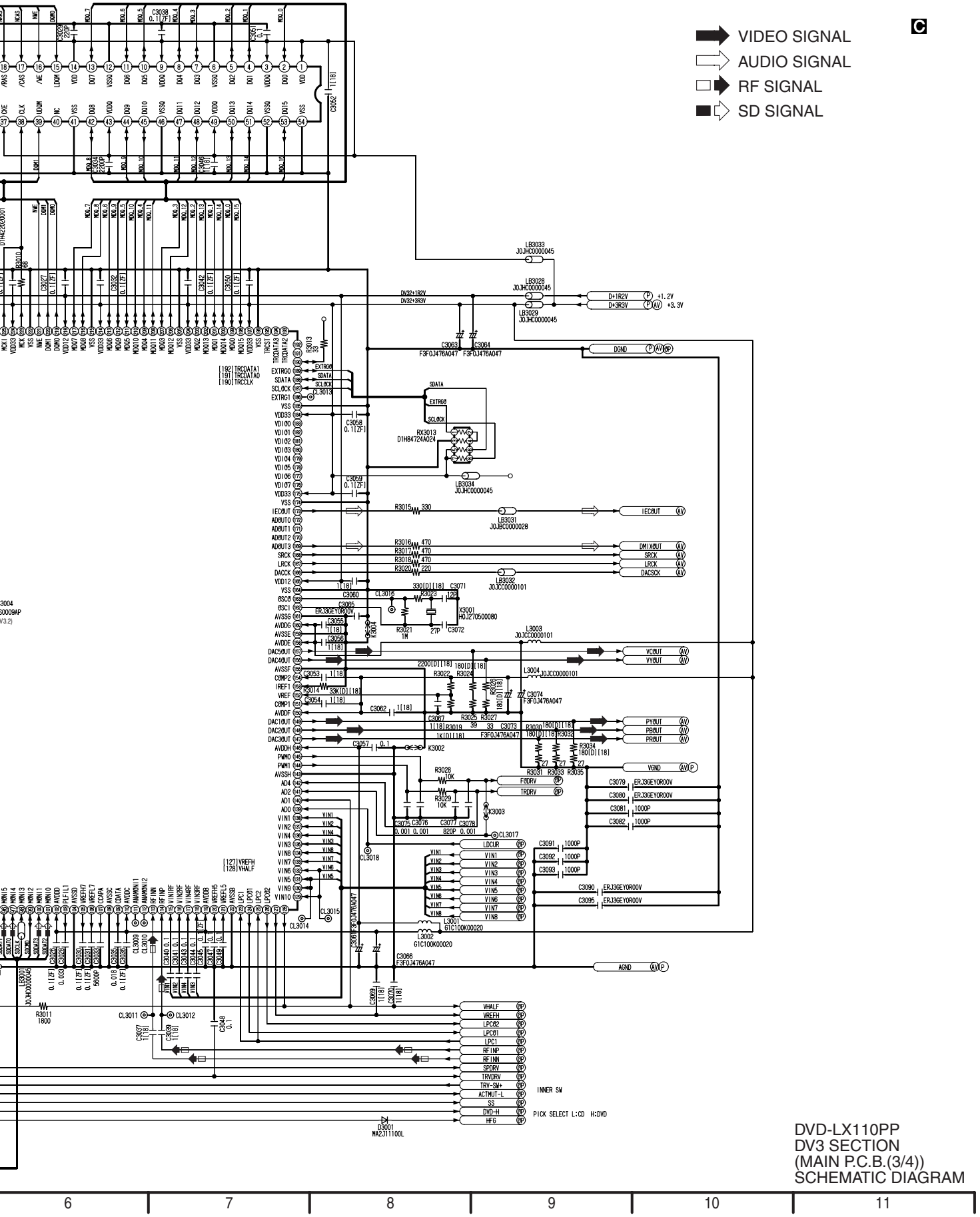
A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)

DVD-LX110PP
AUDIO OUT/VIDEO OUT SECTION
(MAIN P.C.B.(4/4))
SCHEMATIC DIAGRAM

6 | 7 | 8 | 9 | 10 | 11

16.3. DV3 SECTION (MAIN P.C.B. (3/4)) SCHEMATIC DIAGRAM

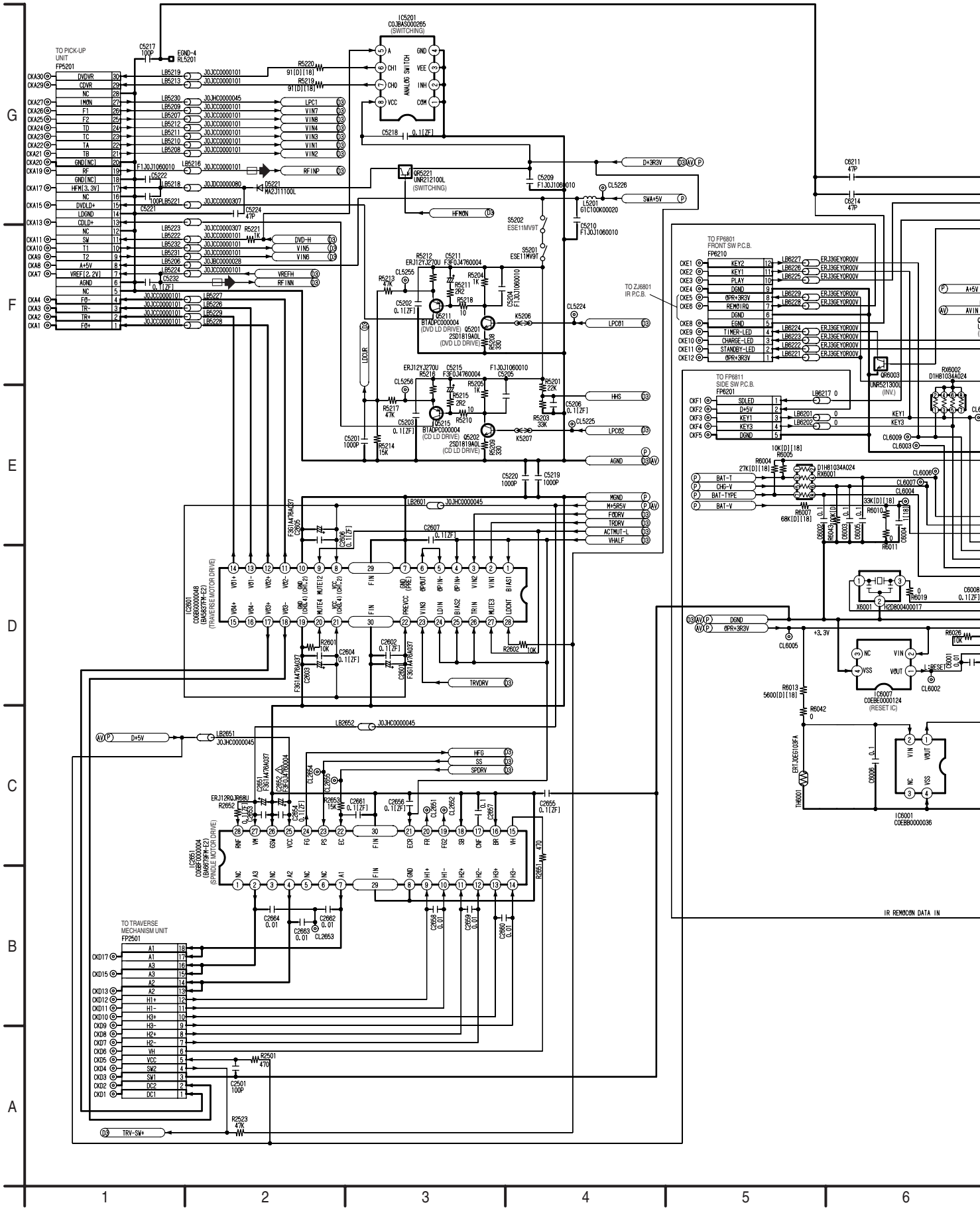




DVD-LX110PP
DV3 SECTION
(MAIN P.C.B.(3/4))
SCHEMATIC DIAGRAM

6 | 7 | 8 | 9 | 10 | 11

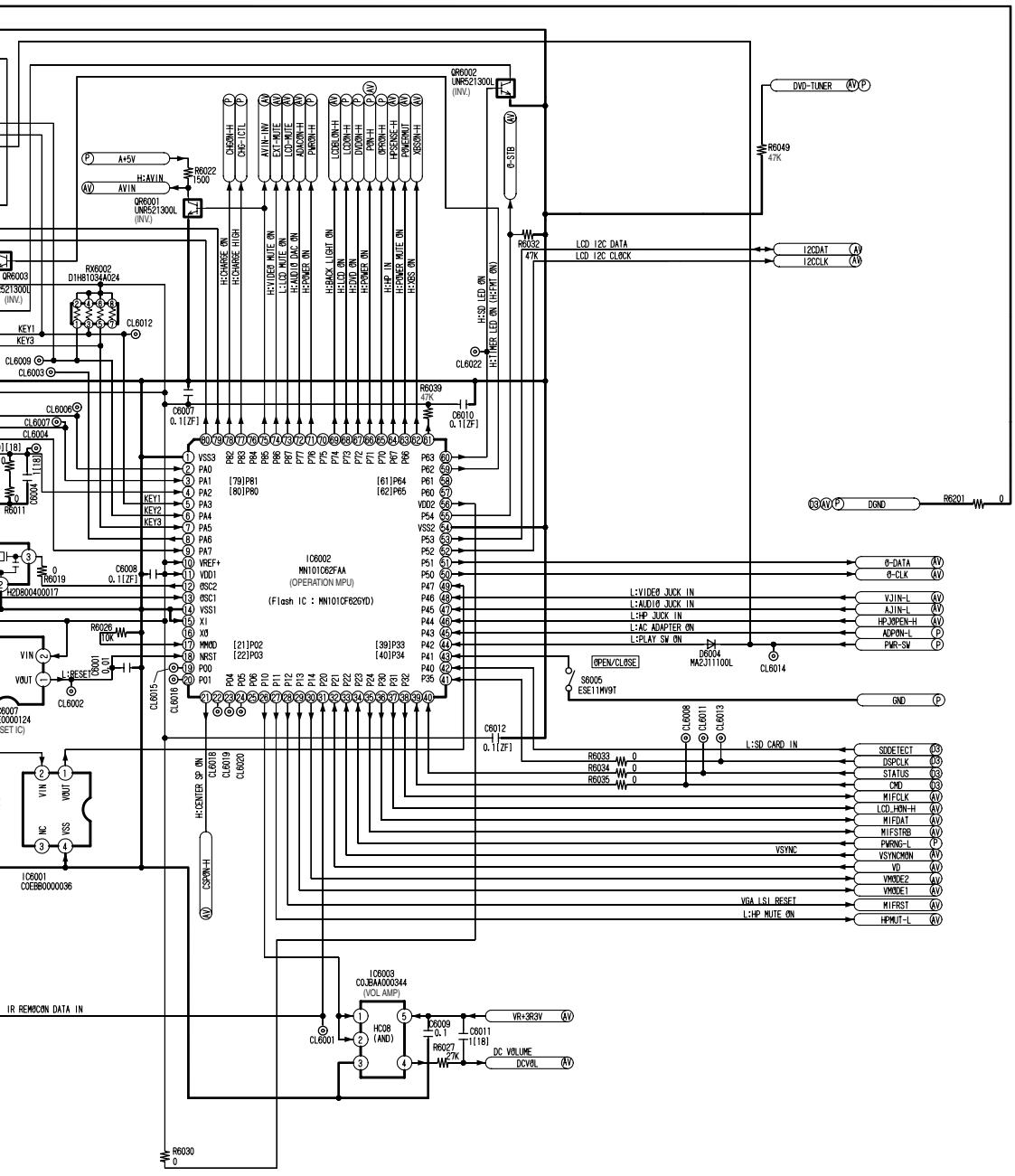
16.2. OPTICAL PICK UP/SERVO/OPERATION SECTION (MAIN P.C.B. (2/4)) SCHEMAT



SCHEMATIC DIAGRAM

B

RF SIGNAL



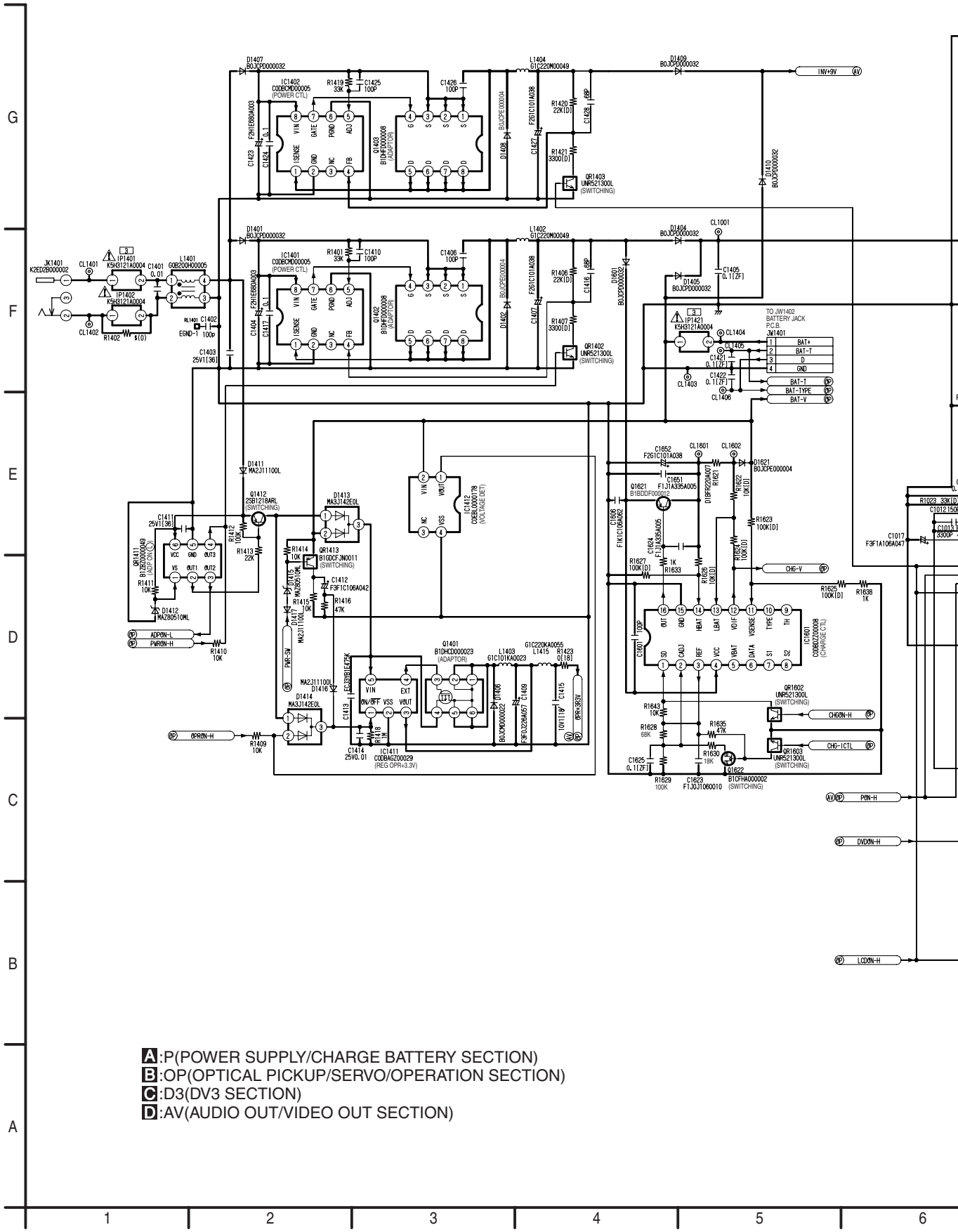
A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)

DVD-LX110PP
OPTICAL PICKUP/SERVO/
OPERATION SECTION
(MAIN P.C.B.(2/4))
SCHEMATIC DIAGRAM

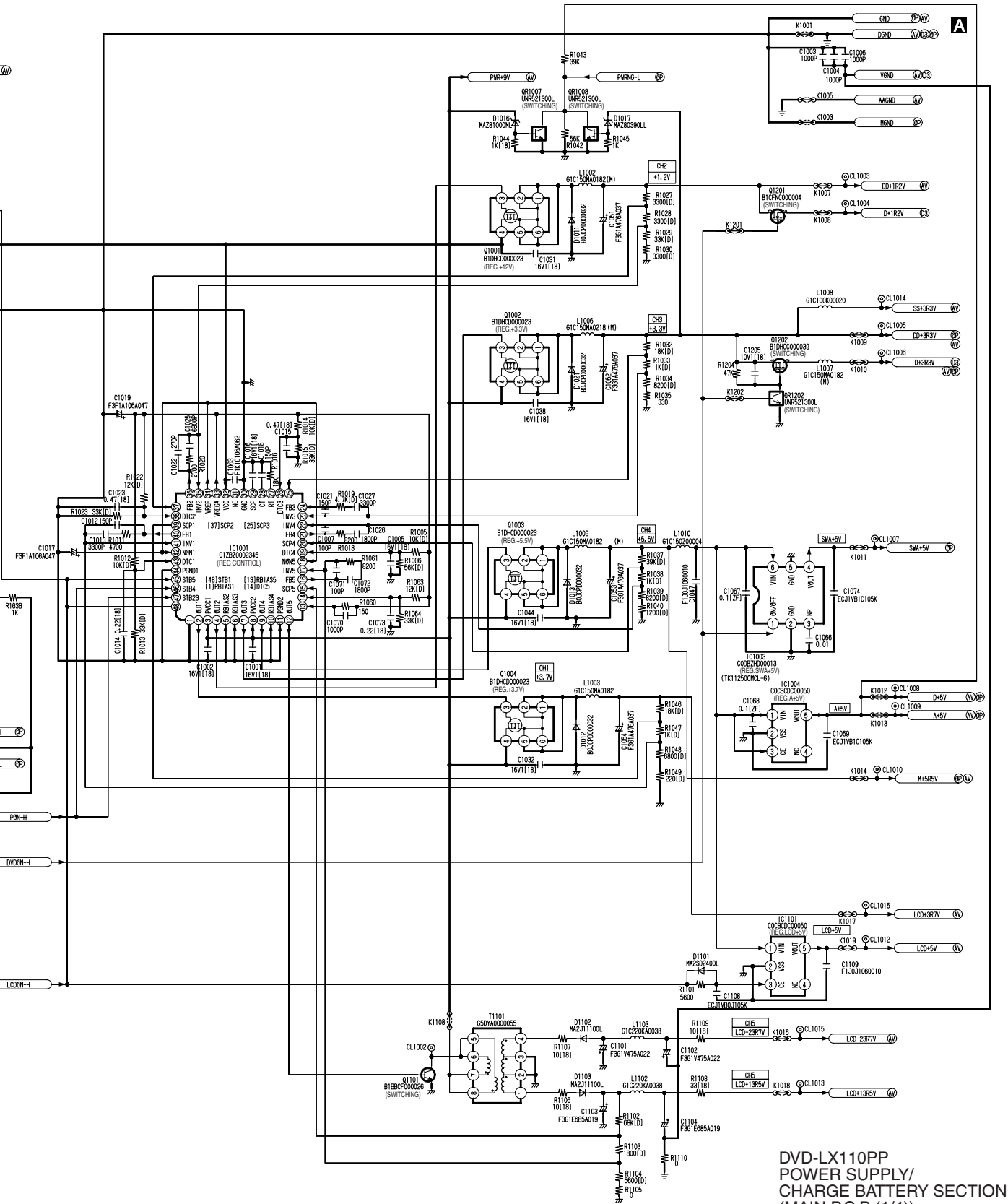
6 | 7 | 8 | 9 | 10 | 11

16 SCHEMATIC DIAGRAM

16.1. POWER SUPPLY/CHARGE BATTERY SECTION (MAIN P.C.B. (1/4)) SCHEMA



SCHEMATIC DIAGRAM

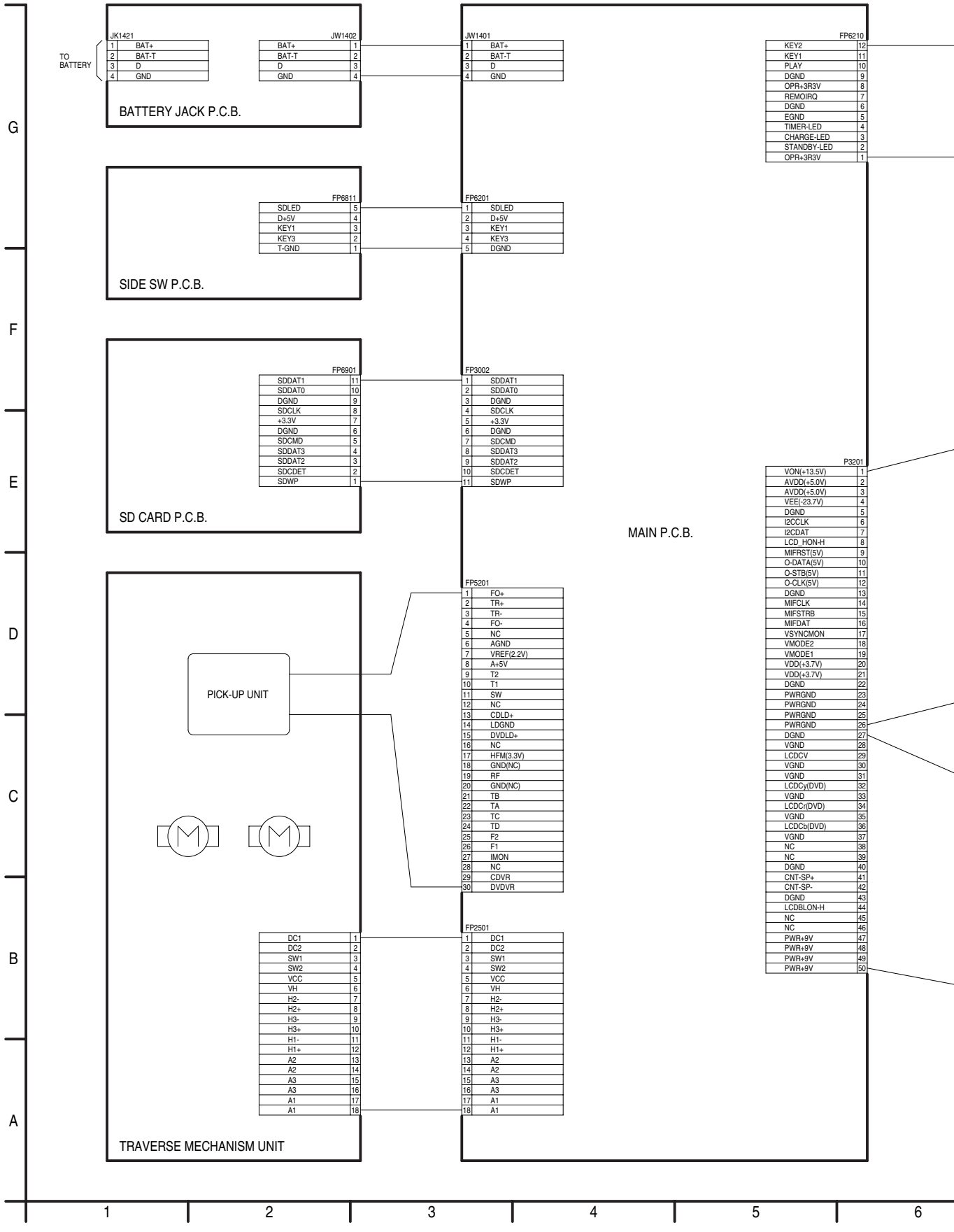


DVD-LX110PP
POWER SUPPLY/
CHARGE BATTERY SECTION
(MAIN P.C.B.(1/4))
SCHEMATIC DIAGRAM

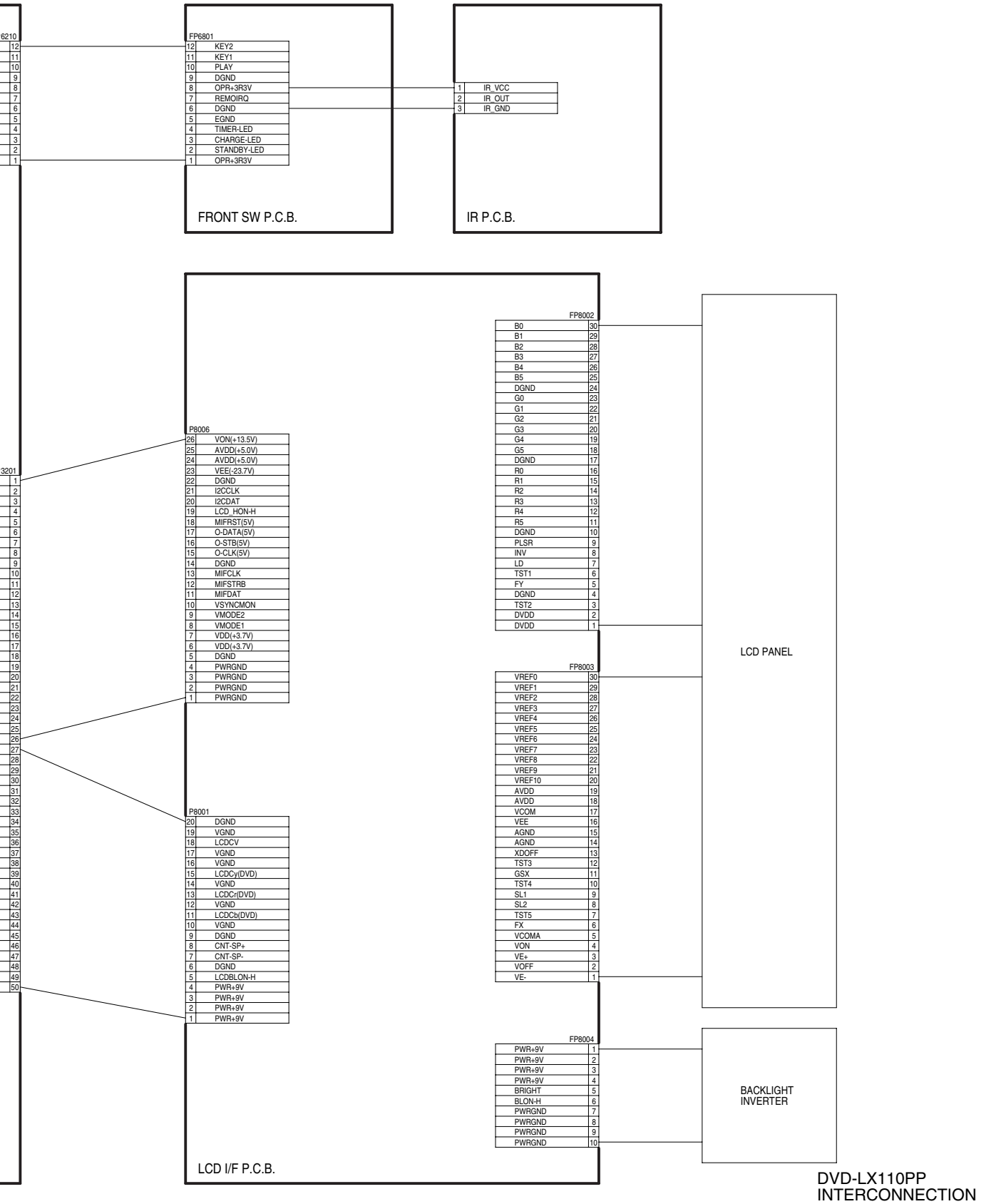
6 | 7 | 8 | 9 | 10 | 11

15 INTERCONNECTION SCHEMATIC DIAGRAM & SCHEMATIC D

15.1. INTERCONNECTION SCHEMATIC DIAGRAM



MATIC DIAGRAM NOTES



DVD-LX110PP
INTERCONNECTION
SCHEMATIC DIAGRAM

6 | 7 | 8 | 9 | 10 | 11

15.2. SCHEMATIC DIAGRAM NOTES

This schematic diagram may be modified at any time with the development of new technology.

Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture´s specified parts shown in theparts list.

Important safety notice:

There are special components used in this equipment which are important for safety.

These parts are marked by ⚠ in the schematic diagrams. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

Cover the parts boxes made of plastics with aluminum foil.

Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE **F1, F3, F4 8A 125V FUSE, F5 1.6A 125V FUSE. F6 4A 125V FUSE.**

RISK OF FIRE-REPLACE FUSE AS MARKED.

FUSE CAUTION

These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire harzard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbole est apposé.

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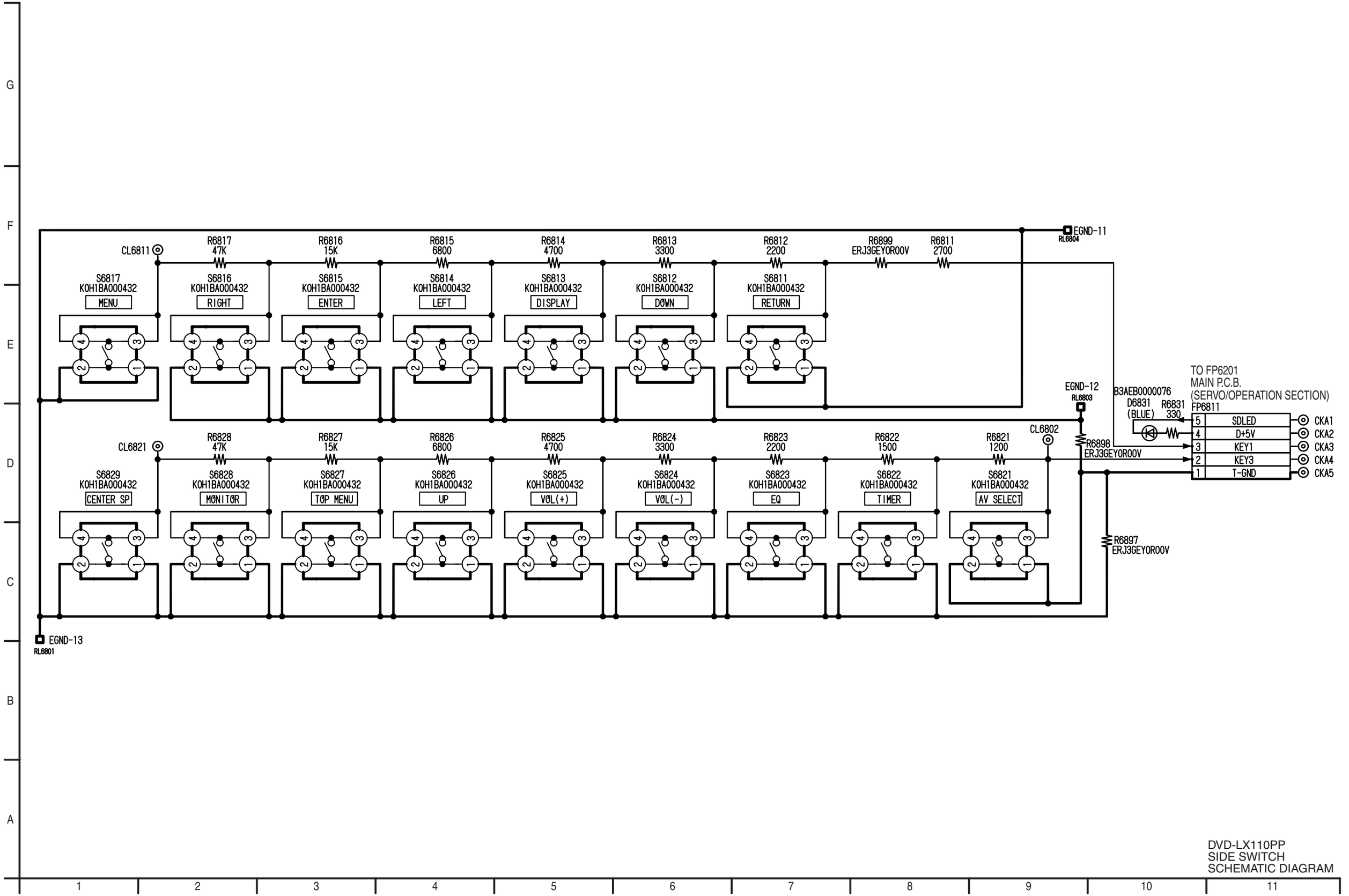


DVD-LX110PP
SIDE SWITCH
SCHEMATIC DIAGRAM

SD SIGNAL

HS6901
K1NA09E00070
(SCDA5A0100)

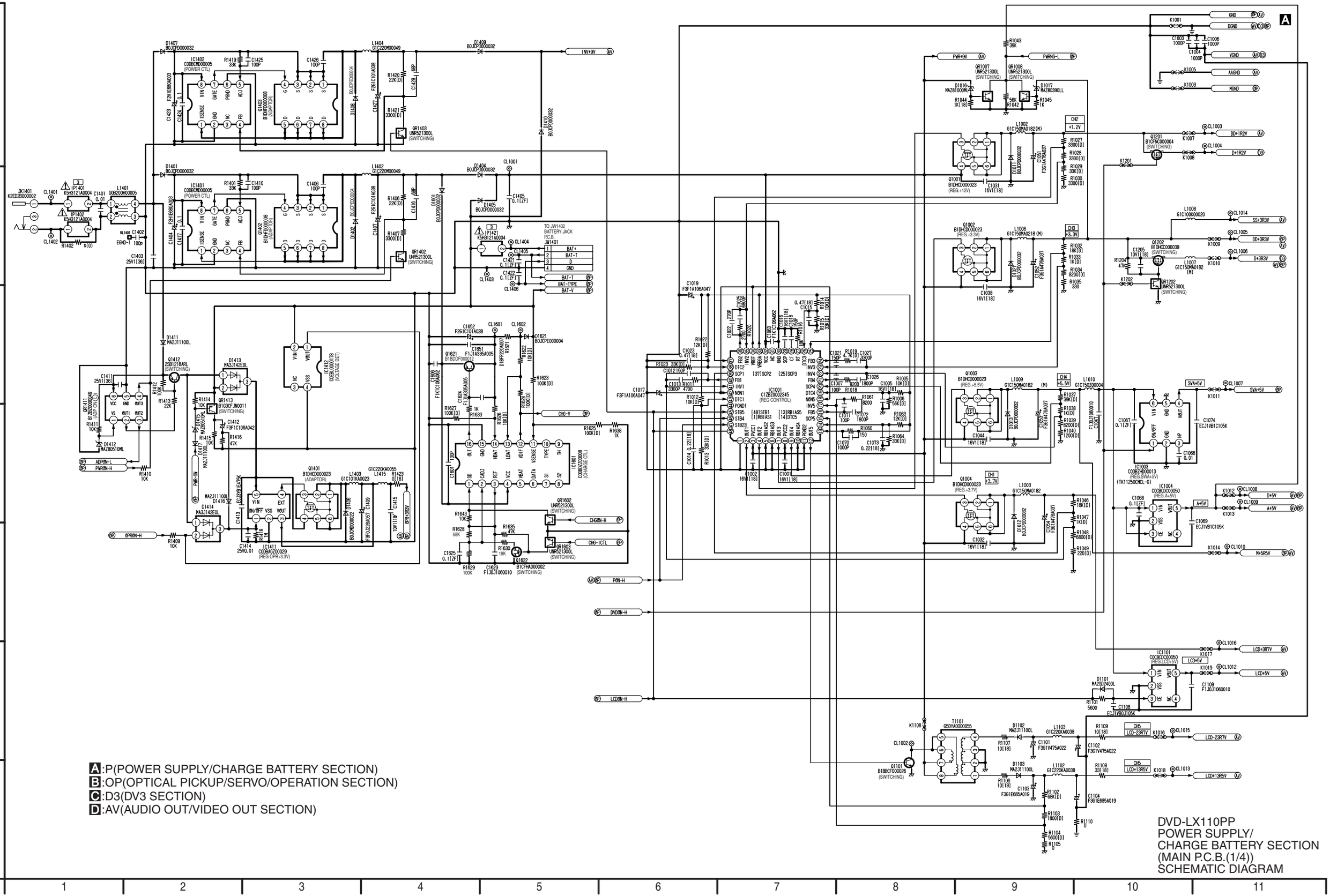
G
SDDAT2
SDDAT3
SDCMD
DGND
D+3. 3V
SDCLK
DGND
SDDAT0
SDDAT1
SDWP
DG
SDCDET
G

CL6901 R6901 10
CL6902 R6902 10
CL6903 R6903 10
C6901 0. 1
C6902 0. 1
CL6906 R6904 10
CL6907 R6905 10
CL6908 R6906 10

TO FP3002
MAIN P.C.B.
(DV3 SECTION)
FP6901

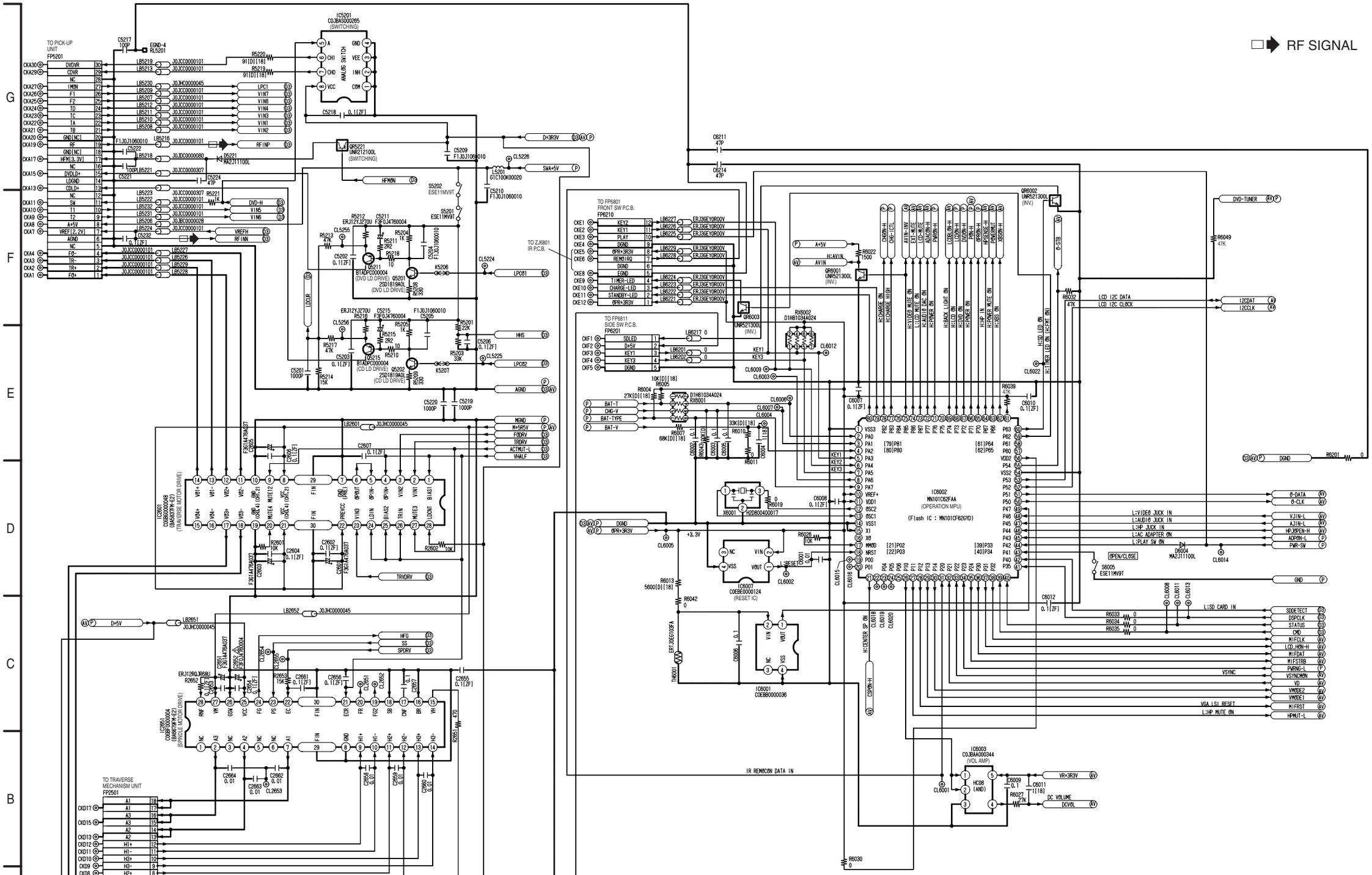
1	SDWP	CKA1
2	SDCDET	CKA2
3	SDDAT2	CKA3
4	SDDAT3	CKA4
5	SDCMD	CKA5
6	DGND	CKA6
7	+3. 3V	CKA7
8	SDCLK	CKA8
9	DGND	
10	SDDAT0	CKA10
11	SDDAT1	CKA11

DVD-LX110PP
SD CARD
SCHEMATIC DIAGRAM


A
INV+9V
PWR+9V
PWRNG-L
GND
DGND
VGND
AAGND
MGND
CH2 +1.2V
CH3 +3.3V
CH4 +5V
CH1 +3.7V
SWA+5V
DD+1R2V
D+1R2V
SS+3R3V
DD+3R3V
D+3R3V
A+5V
M+5R5V
LCD+3R7V
LCD+5V
LCD-23R7V
LCD+13R5V
BAT+
BAT-T
D
GND
BAT-TYPE
BAT-V
TO JW1402 BATTERY JACK P.C.B.
JW1401
ADPON-L
PWRON-H
PWR-SW
CHG-V
CHG2ON-H
CHG-1CTL
PON-H
DVDON-H
LCDON-H
IC1001 C1ZBZ0002345 (REG CONTROL)
[37]SCP2
[25]SCP3
[48]STB1
[1]RBIAS1
[13]RBIAS5
[14]DTC5
IC1601 C0DBZT000008 (CHARGE CTL)
IC1411 C0DBAGZ00029 (REG OPR+3.3V)
IC1412 C0EBLT000178 (VOLTAGE DET)
IC1101 C0QBCDC00050 (REG LCD+5V)
IC1003 C0DBZH000013 (REG SWA+5V) (TK11250MCL-G)
IC1004 C0QBCDC00050 (REG A+5V)
T1101 G5DYA0000055
Q1101 B1BBCF000026 (SWITCHING)
A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)
DVD-LX110PP
POWER SUPPLY/
CHARGE BATTERY SECTION
(MAIN P.C.B.(1/4))
SCHEMATIC DIAGRAM

B

RF SIGNAL



A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)

DVD-LX110PP
OPTICAL PICKUP/SERVO/
OPERATION SECTION
(MAIN P.C.B.(2/4))
SCHEMATIC DIAGRAM

VIDEO SIGNAL

L8801 G1C220KA0055

R8801 2200

R8802 2200

R8803 3300

C8801 0.1

C8806 F3F0J476A047

R8806 12K

C8803 0.01

R8805 12K

C8802 0.01

IC8801 C0BBBA000043 (AMP)

V- OUTPUT -INPUT +INPUT

OUTPUT -INPUT +INPUT

R8804 2200

Q8801 XP0460100L (BUFFER)

R8808 12K

C8805 0.01

R8807 12K

C8804 0.01

Q8802 XP0460100L (BUFFER)

R8816 ERJ3RED100V

R8817 ERJ3RED470V

R8818 ERJ3RED910V

R8819 ERJ3RBD101V

R8820 ERJ3RED910V

R8821 ERJ3RED820V

R8822 ERJ3RBD101V

R8823 ERJ3RBD101V

R8824 ERJ3RBD181V

R8825 ERJ3RBD151V

R8826 ERJ3RED390V

R8827 ERJ3RED100V

CKA43 VREF10

CKA42 VREF9

CKA41 VREF8

CKA40 VREF7

CKA39 VREF6

CKA38 VREF5

CKA37 VREF4

CKA36 VREF3

CKA35 VREF2

CKA34 VREF1

CKA33 VREF0

R8908 0

C8804 0

A30

L8022 G1C100K00020

C8074 1

C8065 1

C8068 0.01

C8067 0.01

A34

A29

A35

A33

IC8006 C0JBAB000613

VCC 1Y NC 1A GND

IC8003 C0JBAE000302

VCC 1Y 1A 1B GND

C8069 100P

R8075 100

IC8004 C0JBAF000380

VCC 2CLR 2D 2CK 2PR 2Q 2Q

1CLR 1D 1CK 1PR 1Q 1Q GND

IC8005 C0JBAS000110

VCC 1C 4C 4I/O 4O/I 3O/I 3I/O

1I/O 1O/I 2O/I 2I/O 2C 3C GND

A41

A39

A38

A40

TO LCD PANEL FP8002

B-0	R8029 J0JBC0000086	30 B0
B-1	R8030 J0JBC0000086	29 B1
B-2	R8031 J0JBC0000086	28 B2
B-3	R8032 J0JBC0000086	27 B3
B-4	R8033 J0JBC0000086	26 B4
B-5	R8034 J0JBC0000086	25 B5
	CKD7	24 DGND
G-0	R8035 J0JBC0000086	23 G0
G-1	R8036 J0JBC0000086	22 G1
G-2	R8037 J0JBC0000086	21 G2
G-3	R8038 J0JBC0000086	20 G3
G-4	R8039 J0JBC0000086	19 G4
G-5	R8040 J0JBC0000086	18 G5
		17 DGND
R-0	R8041 J0JBC0000086	16 R0
R-1	R8042 J0JBC0000086	15 R1
R-2	R8043 J0JBC0000086	14 R2
R-3	R8044 J0JBC0000086	13 R3
R-4	R8045 J0JBC0000086	12 R4
R-5	R8046 J0JBC0000086	11 R5
		10 DGND
LCDPLSR	R8047 0	9 PLSR
LCDLD	R8048 0	8 INV
		7 LD
LCDCLK	R8080 22 FL8001 ERJ6GEY0R00V	6 TST1
TL8901	C8063 33P R8049 J0JCC0000186	5 FY
		4 DGND
		3 TST2
		2 DVDD
		1 DVDD

CKD13 CKD12 CKD11 CKD10 CKD9 CKD8 CKD6 CKD5 CKD4 CKD3 CKD2 CKD1

CKD29 TL8902 CKD25 CKD24 CKD22 CKD20 CKD19 CKD18 CKD17 CKD16 CKD15

R8091 390

R8051 4700 R8050 0

C8071 0.1

FL8002 F1J1A105A013

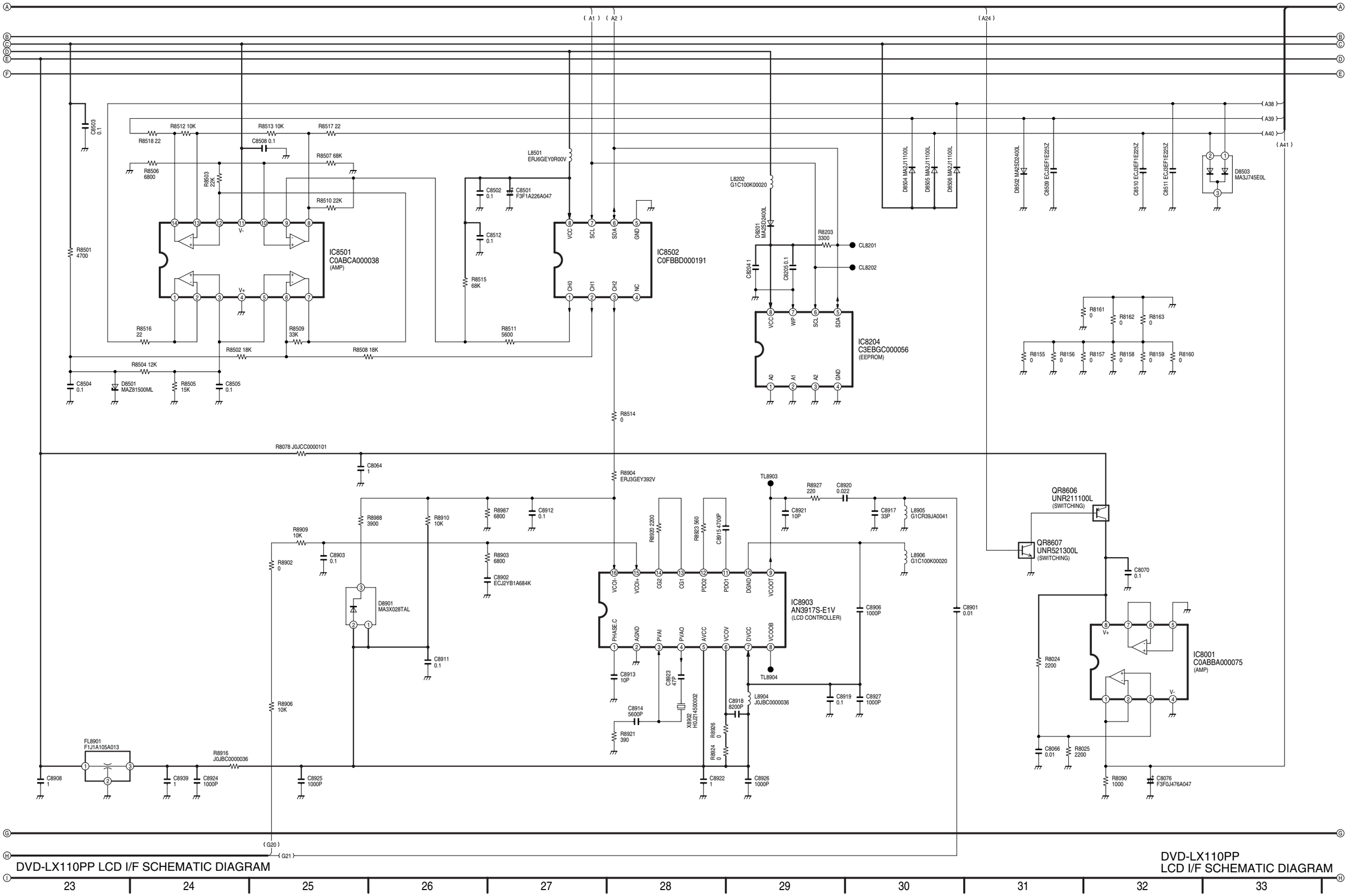
TO LCD PANEL FP8003

VREF0	R8052 0	30 VREF0
VREF1	R8053 0	29 VREF1
VREF2	R8054 0	28 VREF2
VREF3	R8055 0	27 VREF3
VREF4	R8056 0	26 VREF4
VREF5	R8057 0	25 VREF5
VREF6	R8058 0	24 VREF6
VREF7	R8059 0	23 VREF7
VREF8	R8060 0	22 VREF8
VREF9	R8061 0	21 VREF9
VREF10	R8062 0	20 VREF10
		19 AVDD
	R8102 0	18 AVDD
		17 VCOM
		16 VEE
		15 AGND
		14 AGND
LCDXDOF	R8063 J0JCC0000119	13 XDOFF
	R8088 0 R8064 0	12 TST3
LCDGSX	R8065 J0JCC0000119	11 GSX
	R8067 0	10 TST4
	R8068 0	9 SL1
		8 SL2
LCDFX	R8070 0	7 TST5
	L8014 G1C100K00020	6 FX
	R8026 0	5 VCOMA
	R8027 0	4 VON
	R8028 0	3 VE+
		2 VOFF
		1 VE-

C8073 F1J1C335A121

CKE15 CKE14 CKE12 CKE11 CKE10 CKE9 CKE8 CKE7 CKE6 CKE5 CKE4 CKE3 CKE2 CKE1

TL8802 CKE29 TL8901 CKE27 CKE26 CKE25 CKE24 CKE23 CKE22 CKE21 CKE20 CKE19 CKE18 CKE16



DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM

DVD-LX110PP
LCD I/F SCHEMATIC DIAGRAM

IC8002
C1AB00001828
(VIDEO SIGNAL PROCESSOR)

Q8004
2SD1819A0L
(BUFFER)

Q8003
2SB1218ARL
(AMP)

Q8002
2SD1819A0L
(BUFFER)

Q8001
2SB1218ARL
(AMP)

Q8005
2SD1819A0L
(INV.)

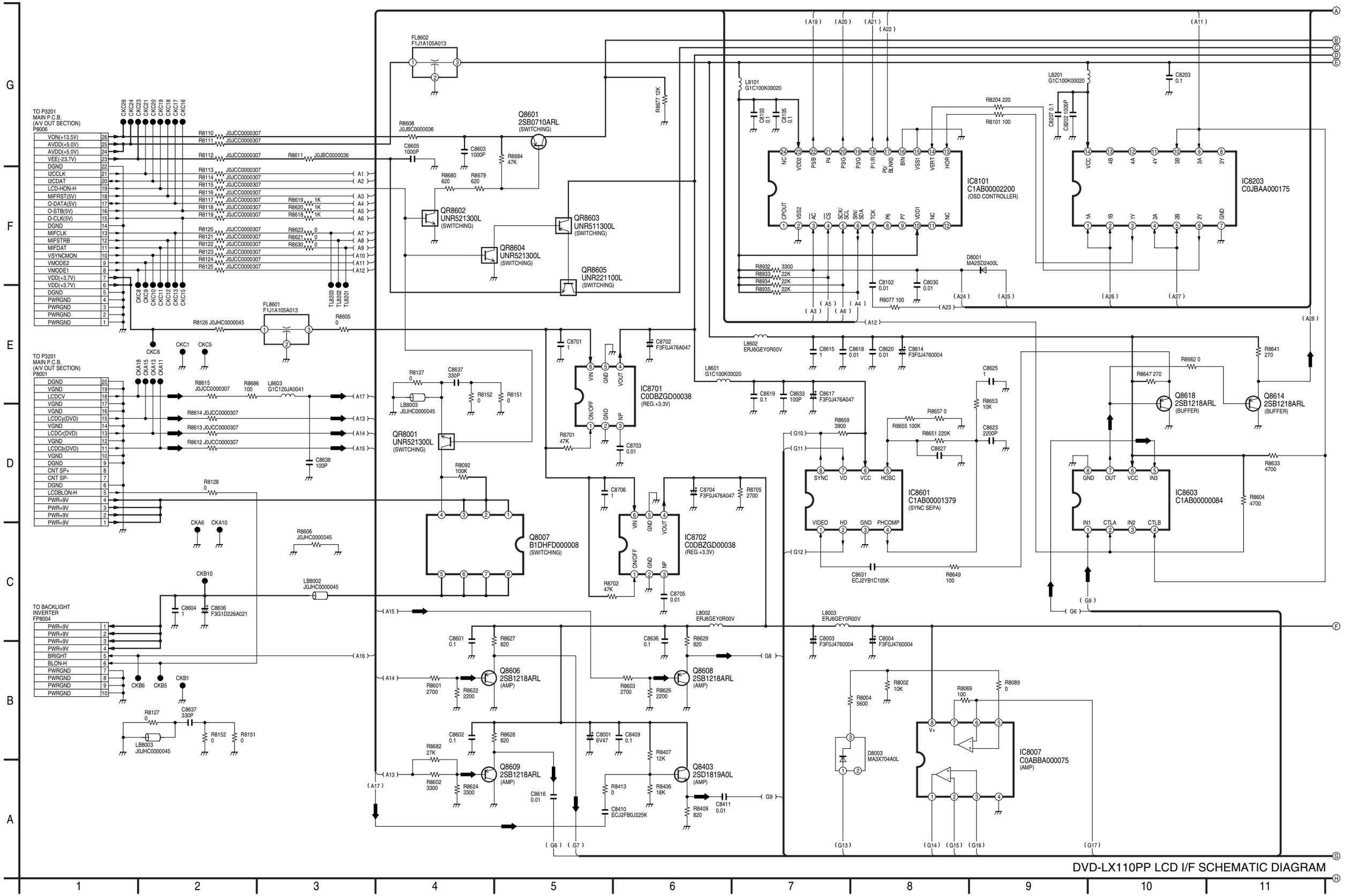
L8004 ERJ6GEY0R00V

L8025 ERJ6GEY0R00V

D8002 MA3X704A0L

ZJ8001 K4ZZ010000183

ZJ8002 K4ZZ010000183


TO P3201
MAIN P.C.B.
(A/V OUT SECTION)
P8006
VON(+13.5V)
AVDD(+5.0V)
AVDD(+5.0V)
VEE(-23.7V)
DGND
I2CCLK
I2CDAT
LCD-HON-H
MIFRST(5V)
O-DATA(5V)
O-STB(5V)
O-CLK(5V)
DGND
MIFCLK
MIFSTRB
MIFDAT
VSYNCMON
VMODE2
VMODE1
VDD(+3.7V)
VDD(+3.7V)
DGND
PWRGND
PWRGND
PWRGND
PWRGND
TO P3201
MAIN P.C.B.
(A/V OUT SECTION)
P8001
DGND
VGND
LCDCV
VGND
VGND
LCDCy(DVD)
VGND
LCDCr(DVD)
VGND
LCDCb(DVD)
VGND
DGND
CNT SP+
CNT SP-
DGND
LCDBLON-H
PWR+9V
PWR+9V
PWR+9V
PWR+9V
TO BACKLIGHT
INVERTER
FP8004
PWR+9V
PWR+9V
PWR+9V
PWR+9V
BRIGHT
BLON-H
PWRGND
PWRGND
PWRGND
PWRGND
FL8602
F1J1A105A013
FL8601
F1J1A105A013
Q8601
2SB0710ARL
(SWITCHING)
QR8602
UNR521300L
(SWITCHING)
QR8603
UNR511300L
(SWITCHING)
QR8604
UNR521300L
(SWITCHING)
QR8605
UNR221100L
(SWITCHING)
QR8001
UNR521300L
(SWITCHING)
Q8007
B1DHFD000008
(SWITCHING)
IC8101
C1AB00002200
(OSD CONTROLLER)
IC8203
C0JBAA000175
IC8701
C0DBZGD00038
(REG.+3.3V)
IC8702
C0DBZGD00038
(REG.+3.3V)
IC8601
C1AB00001379
(SYNC SEPA)
IC8603
C1AB00000084
IC8007
C0ABBA000075
(AMP)
Q8606
2SB1218ARL
(AMP)
Q8608
2SB1218ARL
(AMP)
Q8609
2SB1218ARL
(AMP)
Q8403
2SD1819A0L
(AMP)
Q8618
2SB1218ARL
(BUFFER)
Q8614
2SB1218ARL
(BUFFER)
D8001
MA2SD2400L
D8003
MA3X704A0L
L8101
G1C100K00020
L8201
G1C100K00020
L8602
ERJ6GEY0R00V
L8601
G1C100K00020
L8002
ERJ6GEY0R00V
L8003
ERJ6GEY0R00V
LB8002
J0JHC0000045
LB8003
J0JHC0000045
R8608
J0JBC0000036
R8611
J0JBC0000036
R8677 12K
R8684
47K
R8680
620
R8679
620
R8204 220
R8101 100
R8126 J0JHC0000045
R8605
0
R8615
J0JCC0000307
R8686
100
R8128
0
R8606
J0JHC0000045
R8092
100K
R8701
47K
R8702
47K
R8601
2700
R8603
2700
R8602
3300
R8624
3300
R8622
2200
R8626
2200
R8627
820
R8629
820
R8628
820
R8409
820
R8004
5600
R8002
10K
R8069
100
R8089
0
R8641
270
R8662 0
R8647 270
R8633
4700
R8604
4700
R8653
10K
R8655 100K
R8651 220K
R8659
3900
R8649
100
R8077 100
R8932
3300
R8933
22K
R8934
22K
R8935
22K
R8407
12K
R8413
0
R8406
18K
R8410
ECJ2FB0J225K
C8637
330P
C8638
100P
C8701
1
C8702
F3F0J476A047
C8703
0.01
C8706
1
C8704
F3F0J476A047
C8705
0.01
C8705
2700
C8604
1
C8606
F3G1D226A021
C8601
0.1
C8636
0.1
C8602
0.1
C8616
0.01
C8603
1000P
C8605
1000P
C8103
0.1
C8105
0.1
C8207 0.1
C8202 100P
C8203
0.1
C8102
0.01
C8030
0.01
C8615
1
C8618
0.01
C8620
0.01
C8614
F3F0J4760004
C8619
0.1
C8633
100P
C8617
F3F0J476A047
C8625
1
C8623
2200P
C8627
C8631
ECJ2YB1C105K
C8003
F3F0J4760004
C8004
F3F0J4760004
C8001
6V47
C8409
0.1
C8411
0.01
CKC26
CKC24
CKC23
CKC21
CKC20
CKC19
CKC18
CKC17
CKC16
CKC8
CKC9
CKC10
CKC11
CKC12
CKC13
CKC15
CKC6
CKC1
CKC5
CKA18
CKA15
CKA13
CKA11
CKA6
CKA10
CKB10
CKB6
CKB5
CKB1
TU8203
TU8202
TU8201
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
A16
A17
A19
A20
A21
A22
A23
A24
A25
A26
A27
A28
G6
G7
G8
G9
G10
G11
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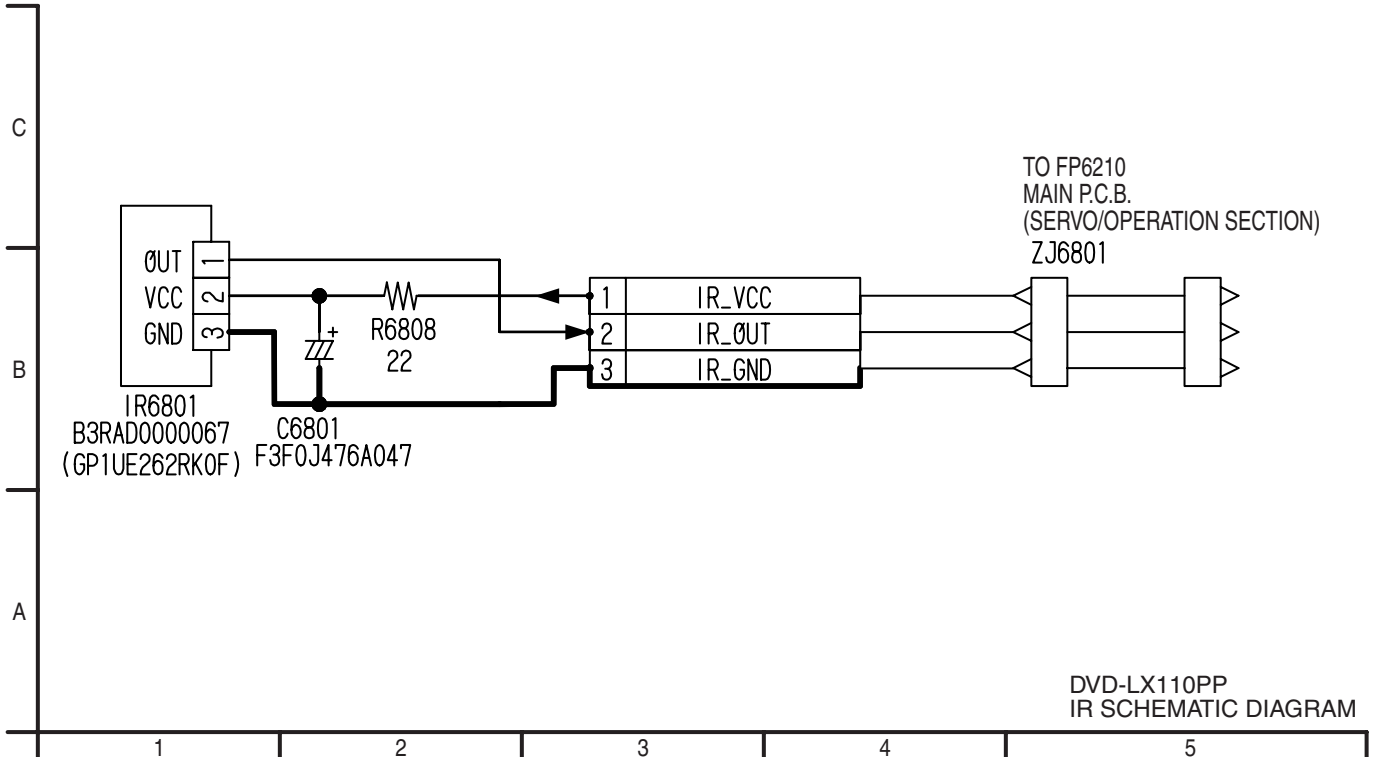
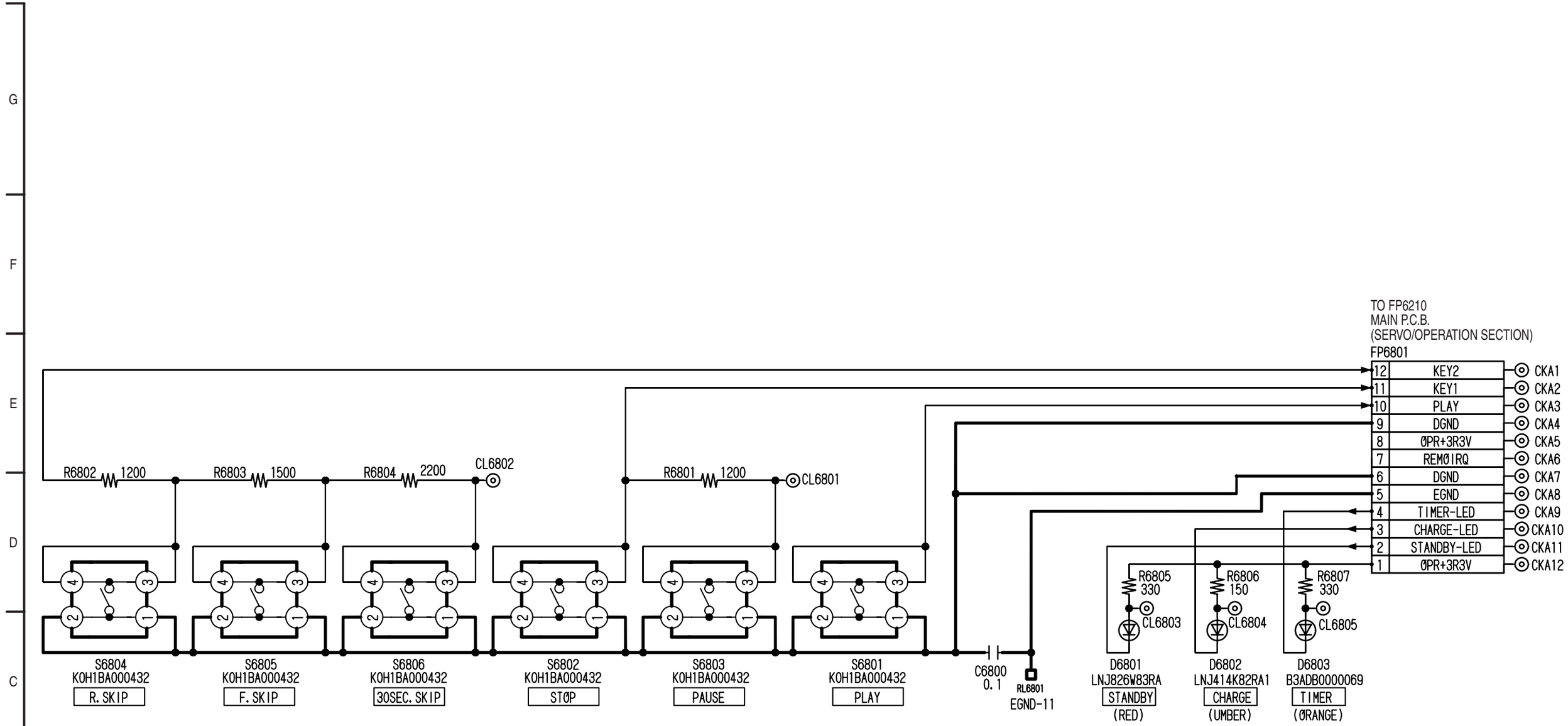
G13
G14
G15
G16
G17
DVD-LX110PP LCD I/F SCHEMATIC DIAGRAM


C
B
A
1
2
3
4
5
ØUT
VCC
GND
1
2
3
R6808
22
IR6801
B3RAD0000067
(GP1UE262RK0F)
C6801
F3F0J476A047
1
2
3
IR_VCC
IR_ØUT
IR_GND
TO FP6210
MAIN P.C.B.
(SERVO/OPERATION SECTION)
ZJ6801
DVD-LX110PP
IR SCHEMATIC DIAGRAM



DVD-LX110PP
FRONT SWITCH
SCHEMATIC DIAGRAM

A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)

VIDEO SIGNAL
AUDIO SIGNAL
RF SIGNAL
SD SIGNAL

C

IC3009 C8MF5G00145 (SDRAM)

IC3001 RFKWPSA0Y320 (32M FLASH ROM)

IC3004 MN2DS0009AP (DV3.2)

IC3002 RFKWDB8017PA (EEPROM)

IC3007 C0EBE0000384 (RESET)

RX3001 D1H41C0320002
RX3002 D1H81034A024
RX3003 D1H81034A024
RX3004 D1H81034A024
RX3005 D1H81034A024
RX3006 D1H42220001
RX3007 D1H81034A024
RX3008 D1H81034A024
RX3009 D1H42220001
RX3010 68
RX3011 D1H84724A024
RX3012 33
RX3013 D1H84724A024

FP3002
TO FP8901 SD CARD P.C.B.

L:SD CARD IN
L:OPEN H:CLOSE
H:AUDIO MUTE

D3001 MA2J111100L
D3002 MA2J111100L

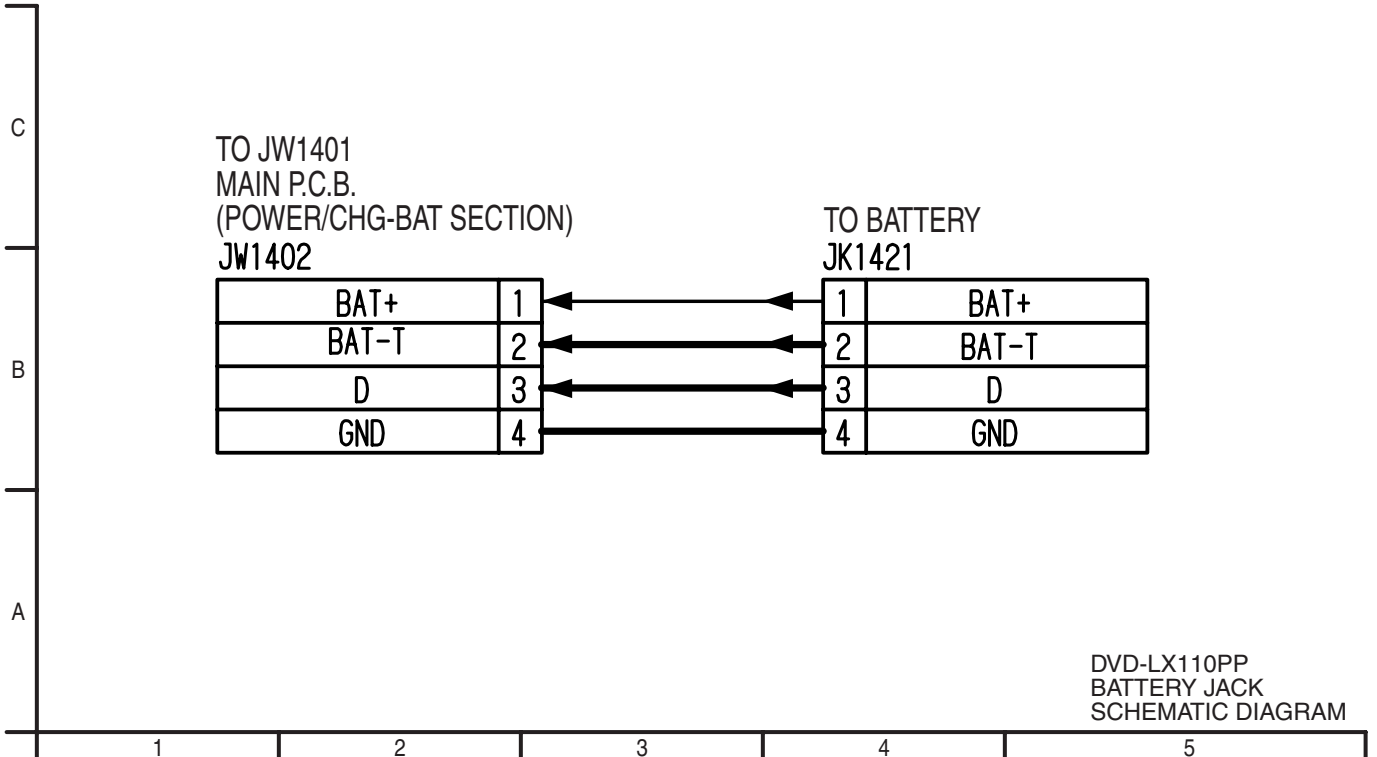
L3001 G1C100K00020
L3002 G1C100K00020
L3003 J0JCC0000101
L3004 J0JCC0000101
LB3001 J0JHC0000045
LB3002 J0JHC0000045
LB3003 J0JHC0000045
LB3004 J0JHC0000045
LB3028 J0JHC0000045
LB3029 J0JHC0000045
LB3031 J0JBC0000028
LB3032 J0JCC0000101
LB3033 J0JHC0000045
LB3034 J0JHC0000045

X3001 H0JZ70500080
X3002 H0JZ70500080
X3003 H0JZ70500080
K3001
K3002
K3003

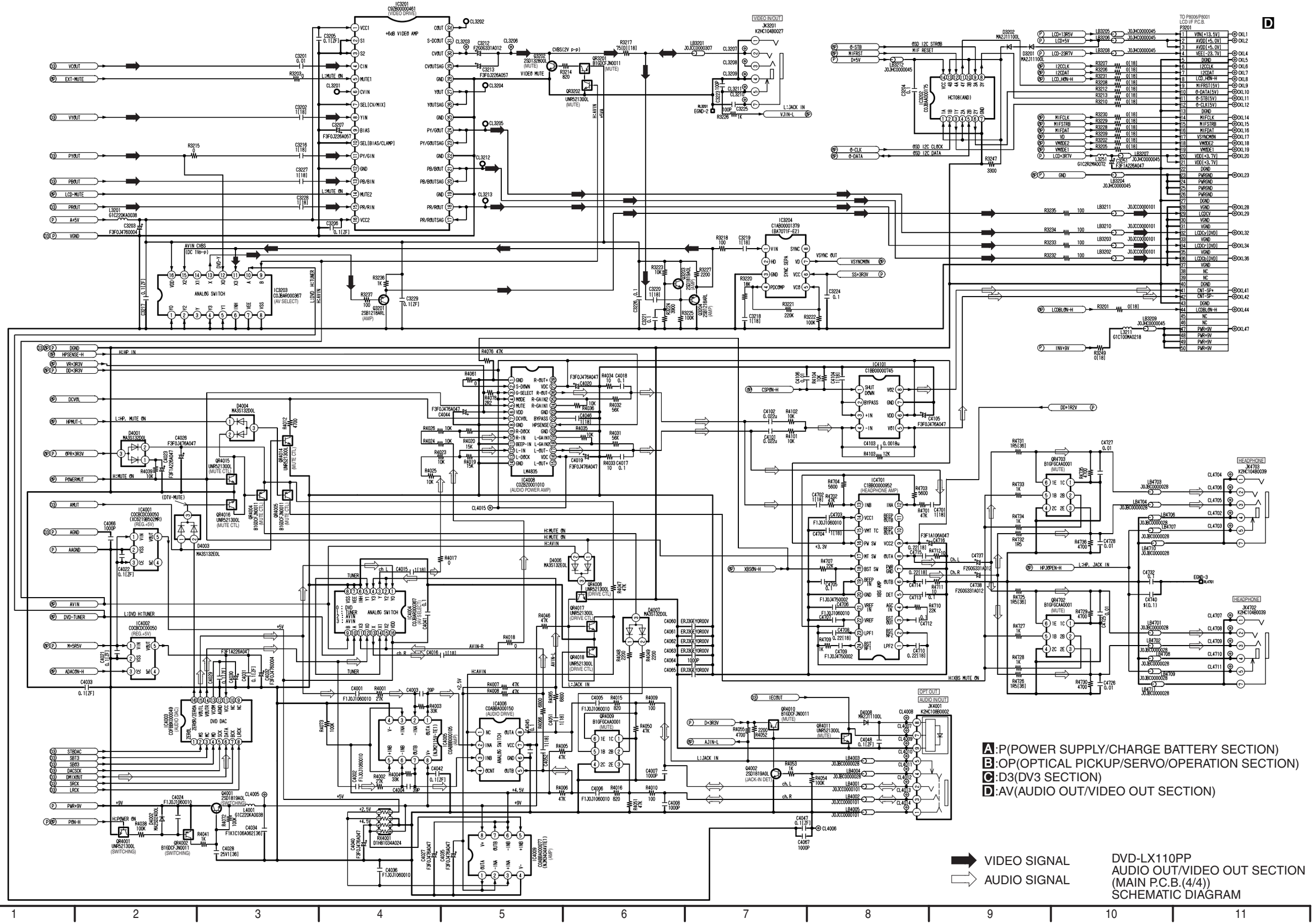
CL3001
CL3002
CL3003
CL3004
CL3005
CL3006
CL3007
CL3008
CL3009
CL3010
CL3011
CL3012
CL3013
CL3014
CL3015
CL3016
CL3017
CL3018

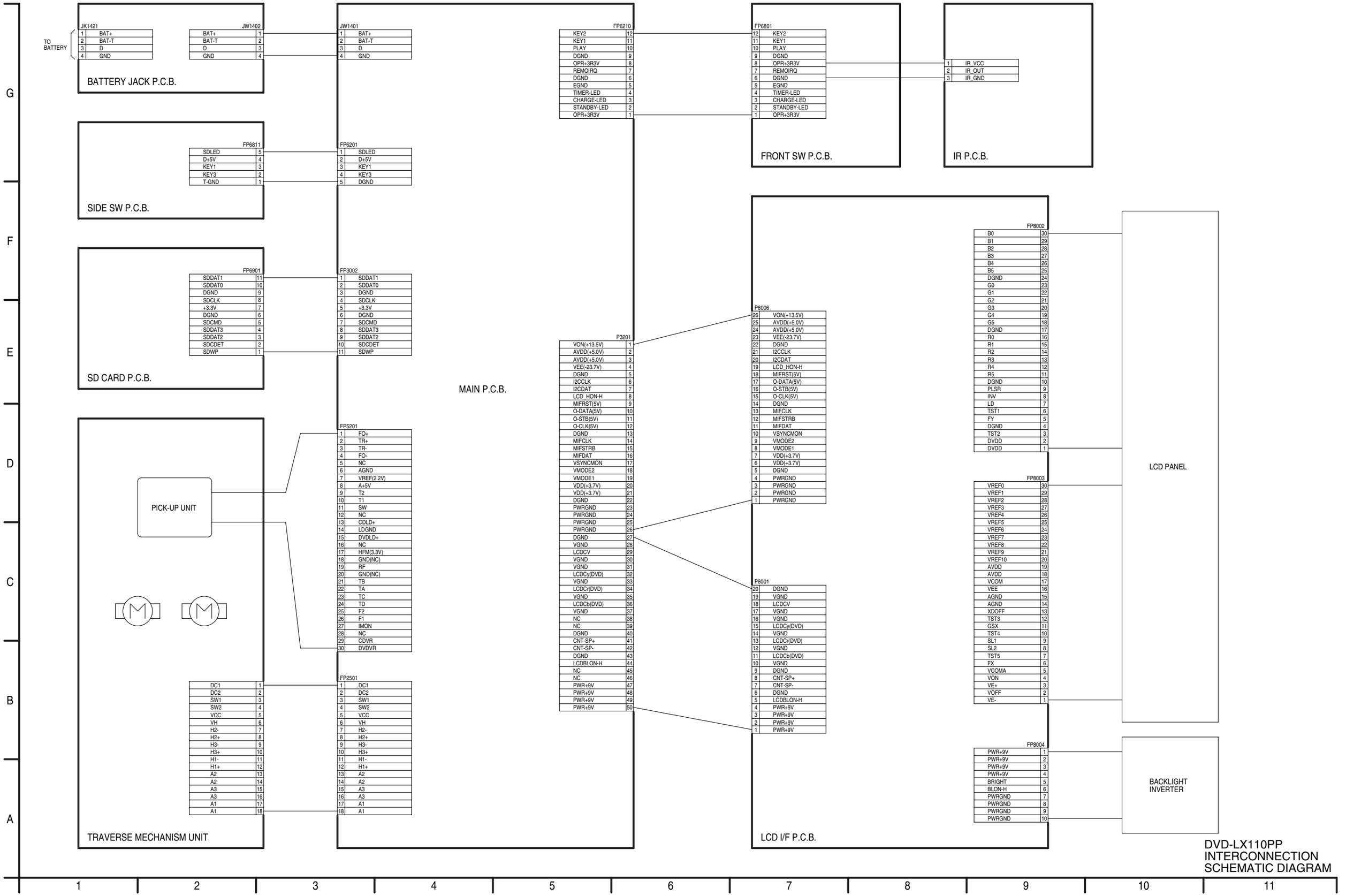
INNER SW
PICK SELECT L:CD H:DVD

DVD-LX110PP
DV3 SECTION
(MAIN P.C.B.(3/4))
SCHEMATIC DIAGRAM

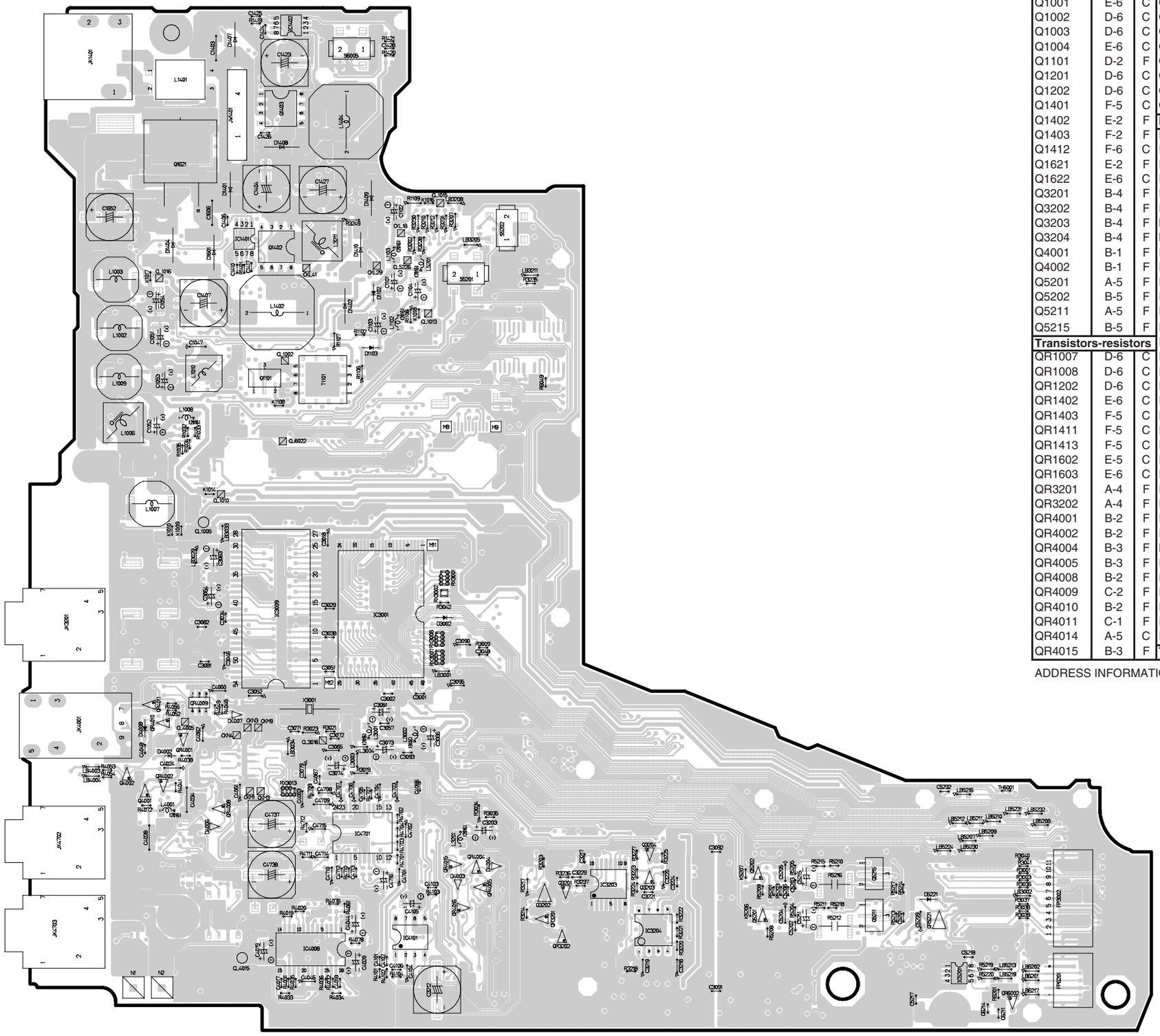


DVD-LX110PP
BATTERY JACK
SCHEMATIC DIAGRAM


D
VIDEO IN/OUT
TO P8006/P8001
LCD I/F P.C.B.
P3201
IC3201
C9ZB00000461
(VIDEO DRIVE)
+6dB VIDEO AMP
IC3204
C1AB00001379
(BA7071F-E2)
IC3203
C0JB40000367
(AV SELECT)
ANALOG SWITCH
AVIN CVBS
(DC 1Vp-p)
IC4101
C1BB00000745
IC4701
C1BB00000952
(HEADPHONE AMP)
IC4001
C0CBCDC00050
(X0R21BB520NR)
(REG.+5V)
IC4002
C0JBCDC00050
(REG.+5V)
IC4003
CSTR0B0049
(AUDIO DAC)
DVD DAC
IC4006
C0ABBA000150
(AUDIO DRIVE)
IC4008
C0ZB70001010
(AUDIO POWER AMP)
LM4835
IC4004
C0CBA0000175
(HCT08(AND))
D3202
MA2J1110OL
D3201
MA2J1110OL
LCD+13R5V
LCD+5V
LCD-23R7V
I2CCLK
I2CDAT
LCD_HON-H
MIFRST(5V)
6-DATA(5V)
6-STB(5V)
6-CLK(5V)
MIFCLK
MIFSTRB
MIFDAT
VSYNCMON
VMODE2
VMODE1
LCD+3R7V
GND
OSD I2C STROBE
MIF RESET
OSD I2C CLOCK
OSD I2C DATA
6-STB
MIFRST
D+5V
6-CLK
6-DATA
VCOUT
EXT-MUTE
YOUT
POUT
VGND
LCD-MUTE
PR0UT
A+5V
L:MUTE ON
L:DVD H:TUNER
H:AVIN
H:HP IN
HPMUT-L
OPR+3R3V
POWERMUT
H:MUTE ON
(DTV-MUTE)
AMUT
AGND
AAGND
AVIN
DVD-TUNER
M+5R5V
ADACON-H
DCVOL
VR+3R3V
DD+3R3V
DGND
HPSENSE-H
H:POWER ON
P0N-H
PWR+9V
+9V
+5V
+4.5V
+2.5V
STBDAC
SBI3
SBX3
DACSCK
DMIXOUT
SRCK
LRCK
CSPON-H
XBSON-H
HP.JOPEN-H
L:HP. JACK IN
L:JACK IN
H:XBS MUTE ON
IECOUT
D+3R3V
AJIN-L
OPT OUT
AUDIO IN/OUT
JK4001
K2HC10B60002
HEADPHONE
JK4703
K2HC10480039
JK4702
K2HC10480039
DD+1R2V
INV+9V
LCDBLON-H
SS+3R3V
VSYNCMON
EGND-2
EGND-3
VJIN-L
L:JACK IN
H:AVIN
H:MUTE ON
AVIN-R
AVIN-L
ch. L
ch. R
TUNER
DVD
AVIN
A:P(POWER SUPPLY/CHARGE BATTERY SECTION)
B:OP(OPTICAL PICKUP/SERVO/OPERATION SECTION)
C:D3(DV3 SECTION)
D:AV(AUDIO OUT/VIDEO OUT SECTION)
VIDEO SIGNAL
AUDIO SIGNAL
DVD-LX110PP
AUDIO OUT/VIDEO OUT SECTION
(MAIN P.C.B.(4/4))
SCHEMATIC DIAGRAM


JK1421
1 BAT+
2 BAT-T
3 D
4 GND
TO BATTERY
JW1402
BAT+ 1
BAT-T 2
D 3
GND 4
BATTERY JACK P.C.B.
JW1401
1 BAT+
2 BAT-T
3 D
4 GND
FP6811
SDLED 5
D+5V 4
KEY1 3
KEY3 2
T-GND 1
SIDE SW P.C.B.
FP6201
1 SDLED
2 D+5V
3 KEY1
4 KEY3
5 DGND
FP6901
SDDAT1 11
SDDAT0 10
DGND 9
SDCLK 8
+3.3V 7
DGND 6
SDCMD 5
SDDAT3 4
SDDAT2 3
SDCDET 2
SDWP 1
SD CARD P.C.B.
FP3002
1 SDDAT1
2 SDDAT0
3 DGND
4 SDCLK
5 +3.3V
6 DGND
7 SDCMD
8 SDDAT3
9 SDDAT2
10 SDCDET
11 SDWP
FP5201
1 FO+
2 TR+
3 TR-
4 FO-
5 NC
6 AGND
7 VREF(2.2V)
8 A+5V
9 T2
10 T1
11 SW
12 NC
13 CDLD+
14 LDGND
15 DVDLD+
16 NC
17 HFM(3.3V)
18 GND(NC)
19 RF
20 GND(NC)
21 TB
22 TA
23 TC
24 TD
25 F2
26 F1
27 IMON
28 NC
29 CDVR
30 DVDVR
PICK-UP UNIT
DC1 1
DC2 2
SW1 3
SW2 4
VCC 5
VH 6
H2- 7
H2+ 8
H3- 9
H3+ 10
H1- 11
H1+ 12
A2 13
A2 14
A3 15
A3 16
A1 17
A1 18
FP2501
1 DC1
2 DC2
3 SW1
4 SW2
5 VCC
6 VH
7 H2-
8 H2+
9 H3-
10 H3+
11 H1-
12 H1+
13 A2
14 A2
15 A3
16 A3
17 A1
18 A1
TRAVERSE MECHANISM UNIT
MAIN P.C.B.
FP6210
KEY2 12
KEY1 11
PLAY 10
DGND 9
OPR+3R3V 8
REMOIRQ 7
DGND 6
EGND 5
TIMER-LED 4
CHARGE-LED 3
STANDBY-LED 2
OPR+3R3V 1
P3201
VON(+13.5V) 1
AVDD(+5.0V) 2
AVDD(+5.0V) 3
VEE(-23.7V) 4
DGND 5
I2CCLK 6
I2CDAT 7
LCD_HON-H 8
MIFRST(5V) 9
O-DATA(5V) 10
O-STB(5V) 11
O-CLK(5V) 12
DGND 13
MIFCLK 14
MIFSTRB 15
MIFDAT 16
VSYNCMON 17
VMODE2 18
VMODE1 19
VDD(+3.7V) 20
VDD(+3.7V) 21
DGND 22
PWRGND 23
PWRGND 24
PWRGND 25
PWRGND 26
DGND 27
VGND 28
LCDCV 29
VGND 30
VGND 31
LCDCy(DVD) 32
VGND 33
LCDCr(DVD) 34
VGND 35
LCDCb(DVD) 36
VGND 37
NC 38
NC 39
DGND 40
CNT-SP+ 41
CNT-SP- 42
DGND 43
LCDBLON-H 44
NC 45
NC 46
PWR+9V 47
PWR+9V 48
PWR+9V 49
PWR+9V 50
FP6801
12 KEY2
11 KEY1
10 PLAY
9 DGND
8 OPR+3R3V
7 REMOIRQ
6 DGND
5 EGND
4 TIMER-LED
3 CHARGE-LED
2 STANDBY-LED
1 OPR+3R3V
FRONT SW P.C.B.
1 IR_VCC
2 IR_OUT
3 IR_GND
IR P.C.B.
P8006
26 VON(+13.5V)
25 AVDD(+5.0V)
24 AVDD(+5.0V)
23 VEE(-23.7V)
22 DGND
21 I2CCLK
20 I2CDAT
19 LCD_HON-H
18 MIFRST(5V)
17 O-DATA(5V)
16 O-STB(5V)
15 O-CLK(5V)
14 DGND
13 MIFCLK
12 MIFSTRB
11 MIFDAT
10 VSYNCMON
9 VMODE2
8 VMODE1
7 VDD(+3.7V)
6 VDD(+3.7V)
5 DGND
4 PWRGND
3 PWRGND
2 PWRGND
1 PWRGND
P8001
20 DGND
19 VGND
18 LCDCV
17 VGND
16 VGND
15 LCDCy(DVD)
14 VGND
13 LCDCr(DVD)
12 VGND
11 LCDCb(DVD)
10 VGND
9 DGND
8 CNT-SP+
7 CNT-SP-
6 DGND
5 LCDBLON-H
4 PWR+9V
3 PWR+9V
2 PWR+9V
1 PWR+9V
LCD I/F P.C.B.
FP8002
B0 30
B1 29
B2 28
B3 27
B4 26
B5 25
DGND 24
G0 23
G1 22
G2 21
G3 20
G4 19
G5 18
DGND 17
R0 16
R1 15
R2 14
R3 13
R4 12
R5 11
DGND 10
PLSR 9
INV 8
LD 7
TST1 6
FY 5
DGND 4
TST2 3
DVDD 2
DVDD 1
FP8003
VREF0 30
VREF1 29
VREF2 28
VREF3 27
VREF4 26
VREF5 25
VREF6 24
VREF7 23
VREF8 22
VREF9 21
VREF10 20
AVDD 19
AVDD 18
VCOM 17
VEE 16
AGND 15
AGND 14
XDOFF 13
TST3 12
GSX 11
TST4 10
SL1 9
SL2 8
TST5 7
FX 6
VCOMA 5
VON 4
VE+ 3
VOFF 2
VE- 1
FP8004
PWR+9V 1
PWR+9V 2
PWR+9V 3
PWR+9V 4
BRIGHT 5
BLON-H 6
PWRGND 7
PWRGND 8
PWRGND 9
PWRGND 10
LCD PANEL
BACKLIGHT INVERTER
DVD-LX110PP
INTERCONNECTION
SCHEMATIC DIAGRAM
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

MAIN P.C.B. (2/2)



(FOIL SIDE)

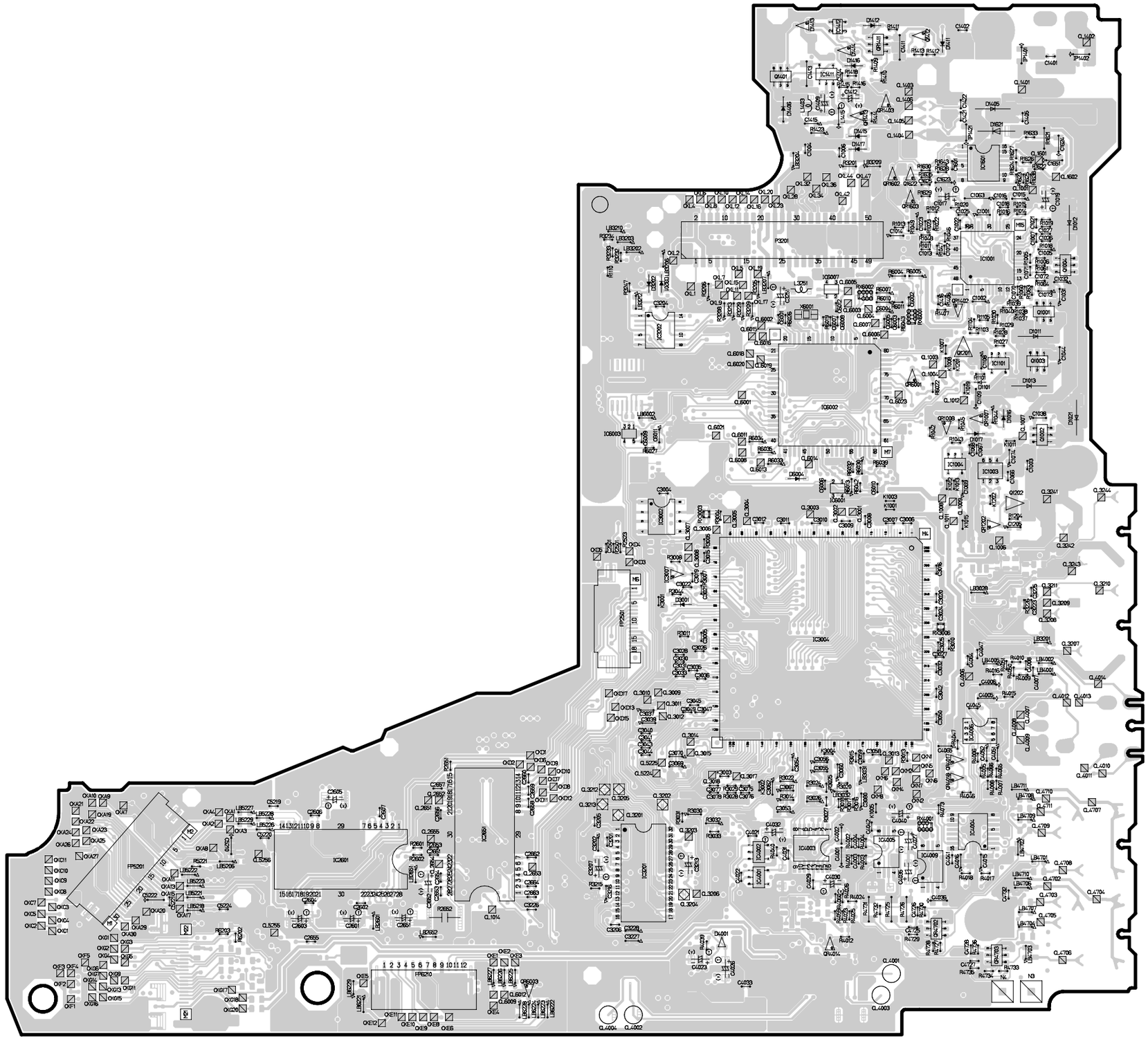
MAIN P.C.B.

Transistors			QR4016	A-3	F	CL1001	E-6	C	CL3018	B-5	C	CL5255	A-2	C
Q1001	E-6	C	QR4017	B-6	C	CL1002	D-2	F	CL3201	B-4	C	CL5256	B-2	C
Q1002	D-6	C	QR4018	B-6	C	CL1003	D-6	C	CL3202	B-4	C	CL6001	D-5	C
Q1003	D-6	C	QR4702	A-6	C	CL1004	D-6	C	CL3203	B-4	C	CL6002	E-5	C
Q1004	E-6	C	QR4703	A-6	C	CL1005	C-2	F	CL3204	B-4	C	CL6003	E-5	C
Q1101	D-2	F	QR5221	A-6	F	CL1006	C-6	C	CL3205	B-4	C	CL6004	E-5	C
Q1201	D-6	C	QR6001	D-6	C	CL1007	D-6	C	CL3206	B-4	C	CL6005	E-5	C
Q1202	D-6	C	QR6002	A-6	F	CL1008	D-6	C	CL3207	C-6	C	CL6006	D-5	C
Q1401	F-5	C	QR6003	A-4	C	CL1009	D-6	C	CL3208	C-6	C	CL6007	E-5	C
Q1402	E-2	F	**Integrated Circuits**			CL1010	D-2	F	CL3209	C-6	C	CL6008	D-5	C
Q1403	F-2	F	IC1001	E-6	C	CL1011	D-6	C	CL3210	C-7	C	CL6009	A-3	C
Q1412	F-6	C	IC1003	D-6	C	CL1012	D-6	C	CL3211	C-6	C	CL6011	D-5	C
Q1621	E-2	F	IC1004	D-6	C	CL1013	E-3	F	CL3212	B-4	C	CL6012	A-3	C
Q1622	E-6	C	IC1101	D-6	C	CL1014	A-3	C	CL3213	B-4	C	CL6013	D-5	C
Q3201	B-4	F	IC1401	E-2	F	CL1015	E-3	F	CL3241	D-6	C	CL6014	D-5	C
Q3202	B-4	F	IC1402	F-2	F	CL1016	E-2	F	CL3242	C-6	C	CL6015	D-5	C
Q3203	B-4	F	IC1411	F-5	C	CL1401	F-6	C	CL3243	C-6	C	CL6016	D-5	C
Q3204	B-4	F	IC1412	F-5	C	CL1402	F-6	C	CL3244	D-7	C	CL6018	D-5	C
Q4001	B-1	F	IC1601	E-6	C	CL1403	F-6	C	CL4001	A-5	C	CL6019	D-5	C
Q4002	B-1	F	IC2601	B-3	C	CL1404	F-6	C	CL4002	A-4	C	CL6020	D-5	C
Q5201	A-5	F	IC2651	B-3	C	CL1405	F-6	C	CL4003	A-5	C	CL6021	D-5	C
Q5202	B-5	F	IC3001	C-3	F	CL1406	F-6	C	CL4004	A-4	C	CL6022	D-2	F
Q5211	A-5	F	IC3002	D-4	C	CL1601	E-6	C	CL4005	B-2	F	CL6023	D-5	C
Q5215	B-5	F	IC3004	C-5	C	CL1602	E-6	C	CL4006	C-6	C	**Switch**		
Transistors-resistors			IC3007	C-4	C	CL2651	B-3	C	CL4007	C-6	C	S5201	E-3	F
QR1007	D-6	C	IC3009	C-2	F	CL2652	B-3	C	CL4008	B-6	C	S5202	E-3	F
QR1008	D-6	C	IC3201	B-4	C	CL2653	B-4	C	CL4009	B-6	C	S6005	F-3	F
QR1202	D-6	C	IC3202	E-4	C	CL2654	B-3	C	CL4010	B-7	C	**Transformer**		
QR1402	E-6	C	IC3203	B-4	F	CL2655	B-3	C	CL4011	B-6	C	T1101	D-2	F
QR1403	F-5	C	IC3204	A-4	F	CL3001	D-5	C	CL4012	C-6	C	**Crystal Osillaror**		
QR1411	F-5	C	IC4001	B-5	C	CL3002	D-5	C	CL4013	C-6	C	X3001	C-2	F
QR1413	F-5	C	IC4002	B-5	C	CL3003	D-5	C	CL4014	C-7	C	X6001	E-5	C
QR1602	E-5	C	IC4003	B-5	C	CL3004	D-5	C	CL4015	A-2	F	**Connectors**		
QR1603	E-6	C	IC4004	B-6	C	CL3005	D-5	C	CL4702	B-6	C	FP2501	C-4	C
QR3201	A-4	F	IC4005	B-5	C	CL3006	C-5	C	CL4703	B-6	C	FP3002	B-6	F
QR3202	A-4	F	IC4006	B-6	C	CL3007	C-4	C	CL4704	B-7	C	FP5201	B-2	C
QR4001	B-2	F	IC4008	A-2	F	CL3008	C-4	C	CL4705	A-6	C	FP6201	A-6	F
QR4002	B-2	F	IC4009	B-6	C	CL3009	C-4	C	CL4706	A-6	C	FP6210	A-3	C
QR4004	B-3	F	IC4101	A-3	F	CL3010	C-4	C	CL4707	B-6	C	JK1401	F-1	F
QR4005	B-3	F	IC4701	B-3	F	CL3011	C-4	C	CL4708	B-6	C	JK3201	C-1	F
QR4008	B-2	F	IC5201	A-6	F	CL3012	C-4	C	CL4709	B-6	C	JK4001	B-1	F
QR4009	C-2	F	IC6001	D-5	C	CL3013	B-5	C	CL4710	B-6	C	JK4702	B-1	F
QR4010	B-2	F	IC6002	D-5	C	CL3014	B-4	C	CL4711	B-6	C	JK4703	A-1	F
QR4011	C-1	F	IC6003	D-4	C	CL3015	B-4	C	CL5224	B-4	C	JW1401	F-2	F
QR4014	A-5	C	IC6007	E-5	C	CL3016	B-2	F	CL5225	B-4	C	P3201	E-5	C
QR4015	B-3	F	**Test Points**			CL3017	B-5	C	CL5226	E-3	F			

ADDRESS INFORMATION C…COMPONENT SIDE F…FOIL SIDE

DVD-LX110PP
MAIN P.C.B. (2/2)
(RFKBLX110PP)

MAIN P.C.B. (1/2)



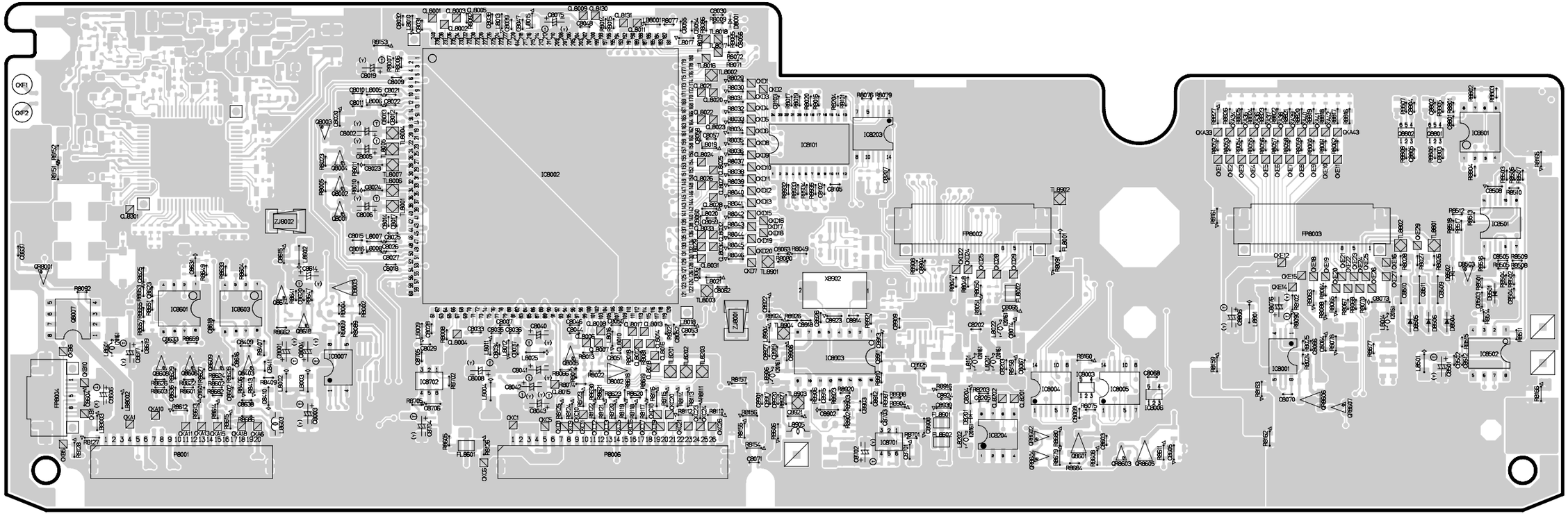
(COMPONENT SIDE)

DVD-LX110PP
MAIN P.C.B.(1/2)
(RFKBLX110PP)

LCD I/F P.C.B.																			
Transistors		Q8609	B-2	QR8606	B-8	IC8203	C-5	CL8001	D-3	CL8012	B-4	CL8024	C-4	CL8131	C-4	TL8016	C-4	TL8903	A-5
Q8001	C-3	Q8614	B-2	QR8607	A-8	IC8204	A-6	CL8002	C-3	CL8013	B-4	CL8025	C-4	CL8201	B-6	TL8017	C-4	TL8904	B-5
Q8002	C-3	Q8618	B-2	**Integrated Circuit**		IC8501	B-9	CL8003	D-3	CL8014	B-4	CL8026	C-4	CL8202	B-6	TL8018	C-4	**Connectors**	
Q8003	C-2	Q8801	C-8	IC8001	B-7	IC8502	B-8	CL8004	B-3	CL8015	B-4	CL8027	C-4	CL8301	C-1	TL8019	C-4	FP8002	B-6
Q8004	C-3	Q8802	C-8	IC8002	C-4	IC8601	B-2	CL8005	D-3	CL8016	B-4	CL8028	C-4	TL8001	C-3	TL8201	B-4	FP8003	B-8
Q8005	B-4	**Transistor-resistor**		IC8003	B-6	IC8603	B-2	CL8006	B-4	CL8017	B-4	CL8029	B-4	TL8002	C-4	TL8202	B-4	FP8004	B-1
Q8007	B-1	QR8001	B-1	IC8004	B-6	IC8701	A-5	CL8007	B-4	CL8018	B-4	CL8031	B-4	TL8003	B-4	TL8203	B-4	P8001	A-2
Q8403	B-2	QR8602	A-6	IC8005	B-7	IC8702	B-3	CL8008	B-4	CL8020	C-4	CL8032	B-4	TL8004	C-3	TL8801	B-8	P8006	A-4
Q8601	A-6	QR8603	A-7	IC8006	B-7	IC8801	C-8	CL8009	D-4	CL8021	C-4	CL8033	B-4	TL8005	C-3	TL8802	B-8		
Q8606	B-2	QR8604	A-6	IC8007	B-3	IC8903	B-5	CL8010	B-4	CL8022	C-4	CL8034	B-4	TL8006	C-3	TL8901	B-5		
Q8608	B-2	QR8605	A-7	IC8101	C-5	**Test Points**		CL8011	C-4	CL8023	C-4	CL8130	D-4	TL8007	C-3	TL8902	C-6		

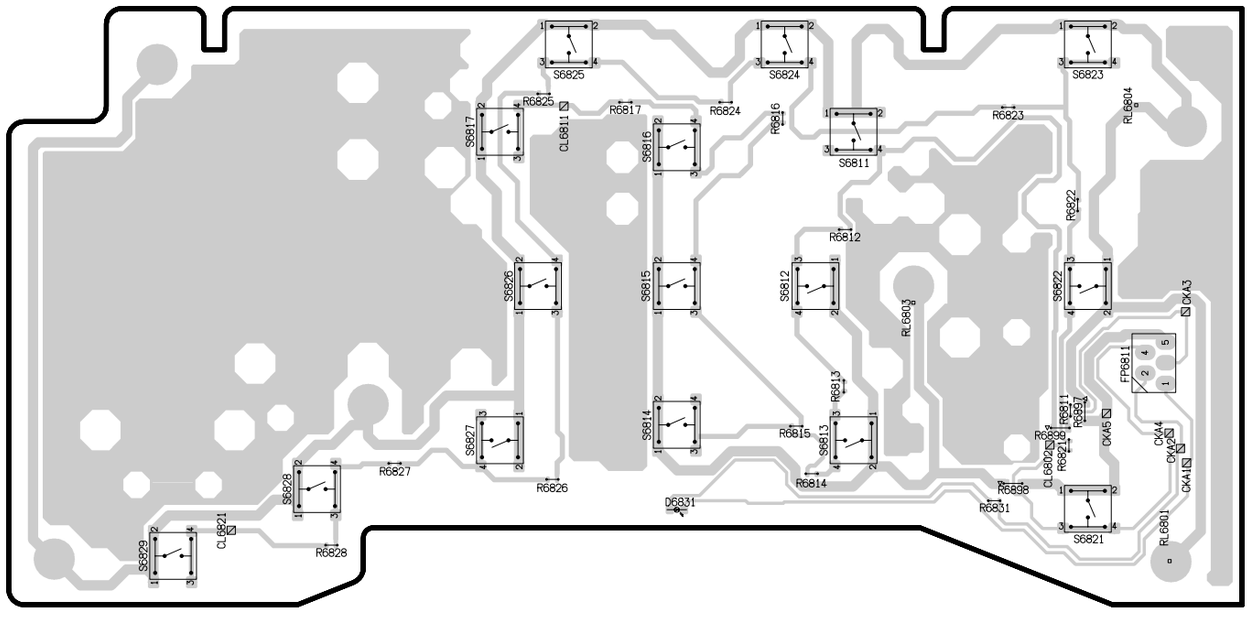
ADDRESS INFORMATION

LCD I/F P.C.B.

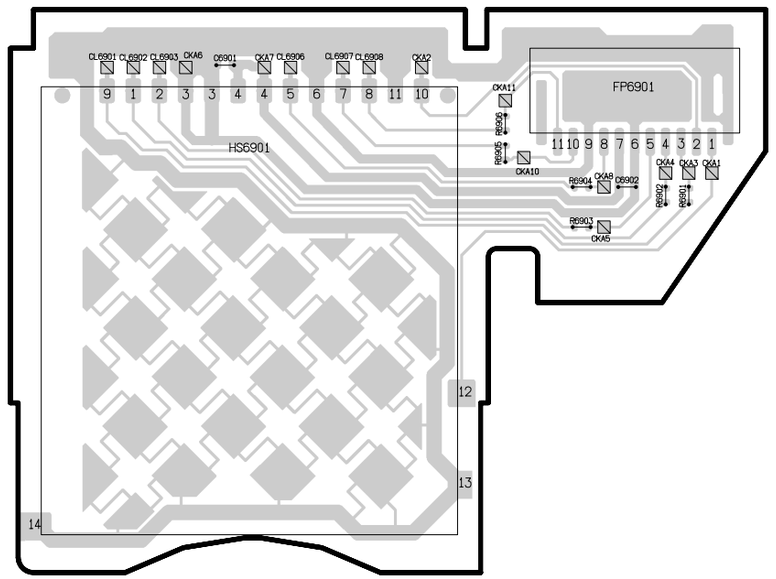


DVD-LX110PP
LCD I/F P.C.B.
(REP4008D-1C)

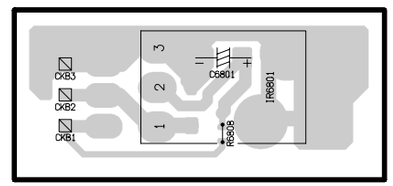
SIDE SW P.C.B.



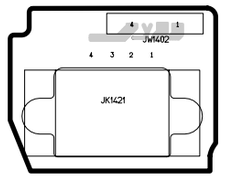
SD CARD P.C.B.



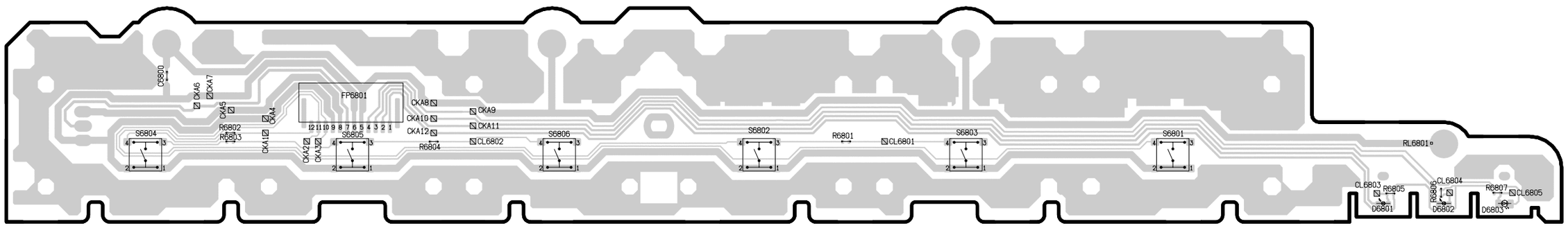
IR P.C.B.



BATTERY JACK P.C.B.



FRONT SW P.C.B.



DVD-LX110PP
BATTERY JACK P.C.B. (REP4003DB-C)
SD CARD P.C.B. (REP4004DC-C)
IR P.C.B. (REP4004DD-C)
SIDE SW P.C.B. (REP4004DA-C)
FRONT SW P.C.B. (REP4004DB-C)

:VIDEO SIGNAL

IC3004-147
0.6Vp-p(20usec./div.)

IC3004-148
0.6Vp-p(20usec./div.)

IC3004-149
1.0Vp-p(20usec./div.)

IC3004-157
0.6Vp-p(20usec./div.)

IC3004-156
1.0Vp-p(20usec./div.)

IC3201-21
1.2Vp-p(20usec./div.)

IC3201-18
1.2Vp-p(20usec./div.)

IC3201-30
2.0Vp-p(20usec./div.)

IC3201-24
2.0Vp-p(20usec./div.)

FROM IC6002-74pin EXT-MUTE

FROM IC6002-73pin LCD-MUTE

IC3004
(DV3.2)

DAC5OUT 157 VCOUT

DAC4OUT 156 VYOUT

DAC1OUT 149 PYOUT

DAC2OUT 148 PBOUT

DAC3OUT 147 PROUT

IC3203
(SELECTOR)

12 X0 X 13
11 X3 B 9
15 X2 A 10

IC3201 (VIDEO DRIVE)

CIN 4 BIAS 6dB + 6MHz LPF 75Ω 30 CVOUT 29

5 MUTE1

YIN 8 CLAMP 6dB

PY/GIN 11 BIAS H / CLAMP L 6dB 12MHz LPF 75Ω 24 PY/GOUT 23

PB/BIN 13 BIAS 6dB 12MHz LPF 75Ω 21 PB/BOUT 20

14 MUTE2

PR/RIN 15 BIAS 6dB 12MHz LPF 75Ω 18 PR/ROUT 17

JK3201
VIDEO IN/OUT
1 2 3 4 5 7

VJIN-L TO IC6002-48pin

Q3202
QR3201
QR3202
MUTE

Q3204
AMP

Q3202
AMP

LCD Cy P3201 32 P8001 15

LCD Cb P3201 36 P8001 11

LCD Cr P3201 34 P8001 13

LCD CV P3201 29 P8001 18

TO LCD I/F P.C.B.

FROM IC6002-75pin AVIN-INV

QR6001
INV

DVD-LX110PP
VIDEO BLOCK DIAGRAM

RF SIGNAL　MOTOR DRIVE SIGNAL　TRACKING ERROR SIGNAL　FOCUS ERROR SIGNAL

OPTICAL PICK UP UNIT

PHOTO DETECTOR

B1 B2 A1 A2 A4 A3 B4 B3

HEAD AMP

LASER DIODE　DVDLD+　Q5201,Q5211　LD DRIVE

LASER DIODE　CDLD+　Q5202,Q5215　LD DRIVE

IC3004 (DV3.2)

VIN5 131
VIN6 132
VIN7 133
VIN8 134
VIN1 138
VIN2 137
VIN3 135
VIN4 136
VREFH 127
LPCO1 124
LPC1 123
LPCO2 126
LPC2 125
RFINN 113
RFINP 114

IC2601
(TRAVERSE MOTOR DRIVE)

PWM1 144 TRDRV → 2 VIN1
PWM0 145 FODRV → 3 VIN2
DRV0 91 TRVDRV → 23 VIN3
DRV3 88 ACTMUT-L → 9 CH1,2 MUTE
27 CH3 MUTE

LEVEL SHIFT

VO3+ 17 DC1
VO3- 18 DC2
TRAVERSE MOTOR

IC2601-11,12,13,14
0.4Vp-p(0.5usec./div.)

BIAS1

LEVEL SHIFT

VO1+ 14 TR+
VO1- 13 TR-
VO2+ 12 FO+
VO2- 11 FO-

OPTICAL PICK UP UNIT
ACTUATOR
TRACKING COIL
FOCUS COIL

SPINDLE MOTOR UNIT

IC2651
(SPINDLE MOTOR DRIVE)

A3 2
A2 4
A1 7
DRIVER
GAIN CONTROL
RNF 28 M+5.5V
CURRENT SENSE AMP
HALL AMP
H1+ 9
H1- 10
H2+ 11
H2- 12
H3+ 13
H3- 14
HALL1
HALL2
HALL3
TL
TSD
PS
PS 23 SS 87 DRV4
TORQUE SENS AMP
EC 22 SPDRV 90 DRV1
ECR 21 VHALF 128
VCC
D R Q CK Q̄
FG 24 HFG 85 FG
TRV-SW+ 89 DRV2
IC2651-24
3.4Vp-p(5msec./div.)

TRAVERSE SW

DVD-LX110PP
SERVO BLOCK DIAGRAM

DVD-LX110PP POWER SUPPLY BLOCK DIAGRAM

JK1401 DC IN
JW1401 BATTERY
IP1401
IP1421
D1401
D1404
D1405
D1407
D1410
D1411
Q1402
Q1403
IC1401
IC1402
QR1402
QR1403
POWER CTL
CTL
INV +9V
Q1412
SWITCHING
D1413
D1414
IC1411
(REG OPR+3.3V)
VIN
VOUT
ON/OFF
EXT
D1416
QR1411
ADP ON
IC1412
VOLTAGE DET
QR1413
Q1401
D1016
IC1001
(REG CONTROLLER)
PVCC1
PVCC2
VCC
OUT2
OUT3
OUT1
OUT4
OUT5
STB23
STB5
STB4
Q1001
Q1002
Q1004
Q1003
REG
Q1201
SW
Q1202,QR1202
D1017
QR1008
POWER NG DET
QR1007
IC1004
IC1003
IC1101
DD +1.2V
D +1.2V
SS +3.3V
DD +3.3V
D +3.3V
LCD +3.7V
D +5V
A +5V
M +5.5V
SWA +5V
LCD +5V
PWR +9V
LCD -23.7V
LCD +13.5V
Q1101
T1101

FRONT SW P.C.B.
R.SKIP S6804
F.SKIP S6805
30SEC.SKIP S6806
STOP S6802
UP S6803
PLAY S6801
TIMER LED D6803
CHARGE LED D6802
STAND-BY LED D6801
FP6801 FP6210
QR6003
LED DRIVE

SIDE SW P.C.B.
SD LED D6831
QR6002
RETURN S6811
DOWN S6812
DISPALY S6813
LEFT S6814
ENTER S6815
RIGHT S6816
MENU S6817
AV SELECT S6821
TIMER S6822
EQ S6823
VOL(-) S6824
VOL(+) S6825
UP S6826
TOP MENU S6827
MONITOR S6828
CENTER SP S6829

IC6002
(OPERATION MPU)
KEY2 6 PA4
59 P62
79 P81
80 P80
60 P63
KEY1 5 PA3
KEY3 7 PA5
OSC2 12
OSC1 13
X6001
OPEN/CLOSE S6005
P41 43
DVDON-H 67 P72
LCDON-H 68 P73
PON-H 66 P71
PWR-SW
D6004
44 P42
10 VREF+
11 VDD1
OPR +3.3V
IR6801
REMOCON
FP6210 8
FP6210 7
REMOIRQ 31 P20
IC6007
RESET
18 NRST
PWRON-H 71 P76
PWRNG-L 34 P23
OPRON-H 65 P70
ADPON-L 45 P43

IC8101
(OSD CONTROLLER)

FROM IC6002-55PIN — O-STB(5V) — 4 $\overline{CS}$
FROM IC6002-50PIN — O-CLK(5V) — 5 SCK/SCL
FROM IC6002-51PIN — O-DATA(5V) — 6 SIN/SDA

INPUT CTL
OSC
DATA CTL
DATA CTL
TIMING GENERATOR
DISPLAY CTL RESISTOR
DISPLAY RAM
READ ADDRESS CTL
DISPLAY CHARACTOR RAM
DISPLAY CHARACTOR ROM
SHIFT RESISTOR
DISPLAY CTL
PORT OUTPUT CTL
POLARITY SW

TCK 7
P0/BLNK0 17
P1/R 18
P3/G 20
P5/B 22

IC8002
(LCD CONTROLLER)

186 OSDCLK
194 OSDCNTY
190 OSDRS
191 OSDGS
192 OSDBS

Q8004 BUFFER — Q8003 AMP — 10 ASWOUT3
27 AD3AIN
Q8002 BUFFER — Q8001 AMP — 51 ASWOUT2
34 AD2AIN
100 VOA

VIDEO SIGNAL

LCD PANEL

B-0 171 — B0 — FP8002 30
B-1 170 — B1 — FP8002 29
B-2 169 — B2 — FP8002 28
B-3 168 — B3 — FP8002 27
B-4 166 — B4 — FP8002 26
B-5 165 — B5 — FP8002 25

IC8002-165
3.8Vp-p(20usec./div.)

G-0 162 — G0 — FP8002 23
G-1 159 — G1 — FP8002 22
G-2 158 — G2 — FP8002 21
G-3 157 — G3 — FP8002 20
G-4 156 — G4 — FP8002 19
G-5 155 — G5 — FP8002 18

IC8002-155
3.8Vp-p(20usec./div.)

R-0 151 — R0 — FP8002 16
R-1 150 — R1 — FP8002 15
R-2 149 — R2 — FP8002 14
R-3 148 — R3 — FP8002 13
R-4 147 — R4 — FP8002 12
R-5 145 — R5 — FP8002 11

IC8002-145
3.8Vp-p(20usec./div.)

LCDCLK 141 — FY — FP8002 5
LCDLD 132 — LD — FP8002 7
LCDPLSR 127 — PLSR — FP8002 9

IC8903
(CLOCK OSCILLATOR)

PD — VCO — AMP2 — 9 — 123 VCO1
PV AMP — 1/2 — AMP1 — 8 — TL8904
15, 16, 3, 4

IC8502

FROM IC6002-53PIN — I2CDAT — 6 SDA
FROM IC6002-52PIN — I2CCLK — 7 SCL
CH2 3

IC8601
(SYNC SEP)

HD 2 — 119 HAFCIN1
VD 7 — 117 VDBIN1
SYNC 8 — 109 SYNCIN1

Q8618 AMP — 1 VIDEO

IC8603

FROM IC6002-30PIN — VMODE2 — 4 CTLB
FROM IC6002-29PIN — VMODE1 — 2 CTLA

TO MAIN P.C.B.

P3201	P8001			
29	18	LCDCV	Q8403 AMP	1 IN1
32	15	LCDCy(DVD)	Q8609 AMP	5 IN3
34	13	LCDCr(DVD)	Q8606 AMP	
36	11	LCDCb(DVD)	Q8608 AMP	

OUT 7 — Q8614 AMP — 91 AD1AIN
55 ASW2AIN
6 ASW3AIN

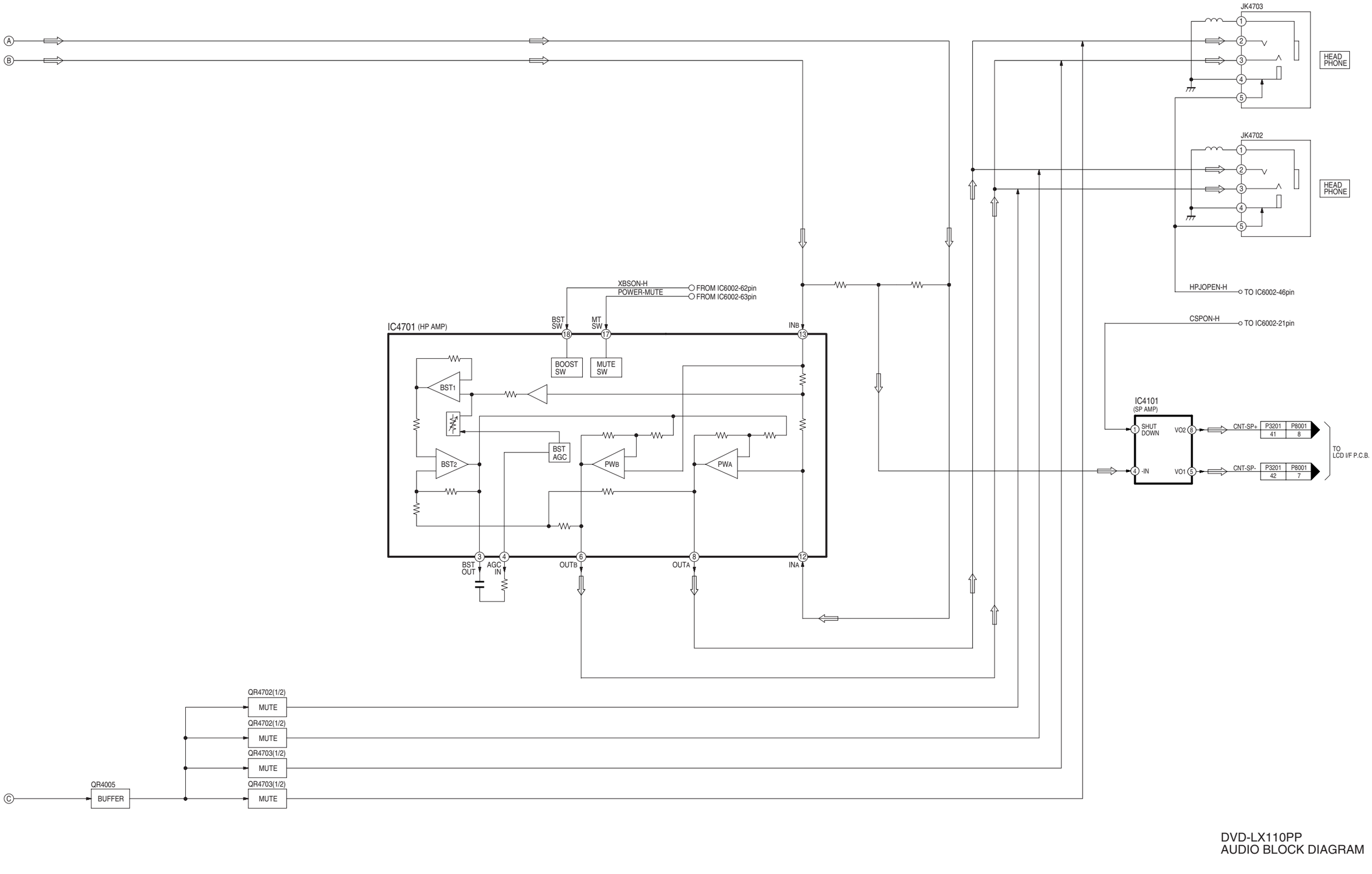
IC8002-55
0.7Vp-p(20usec./div.)

IC8002-91
1.2Vp-p(20usec/div)

IC8002-6
0.7Vp-p(20usec./div.)

DVD-LX110PP
LCD DRIVE BLOCK DIAGRAM

:AUDIO SIGNAL



DVD-LX110PP
AUDIO BLOCK DIAGRAM

IC3004-169
5.0Vp-p(5usec./div.)

IC4003-14,15
4.0Vp-p(0.5msec./div.)

IC3004
(DV3.2)

IC4003
(AUDIO DAC)

IC4004
(SELECTOR)

IC4008
(AUDIO POWER AMP/DC VOLUME CONTROL)

ADOUT3 (DMIX OUT) 169
SRCK 168
LRCK 167
DACCK (DACSCK) 166
IECOUT 173
P13 (AMUT) 80
DATA 6
BCK 7
LRCK 8
SCK 5
AUDIO SERIAL PORT
CONTROLLER
MODULATOR
SYSTEM CLOCK MANAGER
D/A
LPF
D/A
LPF
VOUTR 14
VOUTL 15
ZERR/ ZEROA 16
D4003
QR4016
BUFFER
B 9
DVD-TUNER 10
A
X0 12
Y0 1
X3 11
X2 15
Y3 4
Y2 2
X 13
Y 3
R-IN 10
L-IN 12
BIAS
VOLUME CONTROL
HPSENSE 21
DC VOL 7
MUTE 5
S-DOWN 2
MODE CONTROL
POWER MANAGEMENT
24
25
26
28
15
17
19
18
R-OUT-
L-OUT-
BIAS
A
B

IC6002
(OPERATION MPU)

P85 75 AVIN
QR6001
INV.
QR4014
MUTE

P67 64 HPSENSE-H
IC6003
P10 26
P66 63 POWERMUT
QR4015
BUFFER
P11 27 HPMUT-L
D4004

IC4006
(SW AMP)
IC4005(1/2)
IC4005(1/2)
INA 2
INB 3
OUTA 8
OUTB 5
O CNT 4

D4006
SWITCHING
QR4008
QR4017
QR4018
QR4004
MUTE CTRL
D4007
QR4009 (1/2)
MUTE
QR4009 (1/2)
MUTE

QR4011
MUTE
QR4010
SWITCHING
D+3.3V
Q4002
JACK-IN DET.

JK4001
8
7
9
5
4
2
3
1
OPT OUT
AUDIO IN/OUT

P45 47 AJIN-L

C

DVD-LX110PP
AUDIO BLOCK DIAGRAM

TRAVERSE MECHANISM UNIT

MAIN P.C.B.

PICK-UP UNIT

SPINDLE MOTOR

IC2651

SPINDLE MOTOR DRIVE

TRAVERSE MOTOR

IC2601

TRAVERSE MOTOR DRIVE

FOCUS COIL

TRACKING COIL

IC3004

DV3.2
SERVO CONTROLLER/
OPTICAL DISC CONTROLLER/
AV DECODER/
SYSTEM CONTROLLER

IC3001

32Mbit
FLASH
ROM

IC4003

AUDIO
D/A
CONVERTER

IC4008

AUDIO POWER AMP
DC VOLUME CONTROL

HEADPHONE

IC4004

SELECTOR

AUDIO IN/OUT

OPT OUT

IC6002

LED

REMOTE CONTROL

KEY

OPERATION
MPU

IC3002

8Kbit
EEP ROM

IC3009

128Mbit
SDRAM

IC3201

VIDEO
DRIVE

IC8002

LCD
CONTROLLER

LCD

VIDEO IN/OUT

IC3203

SELECTOR

DVD-LX110PP
OVERALL BLOCK DIAGRAM